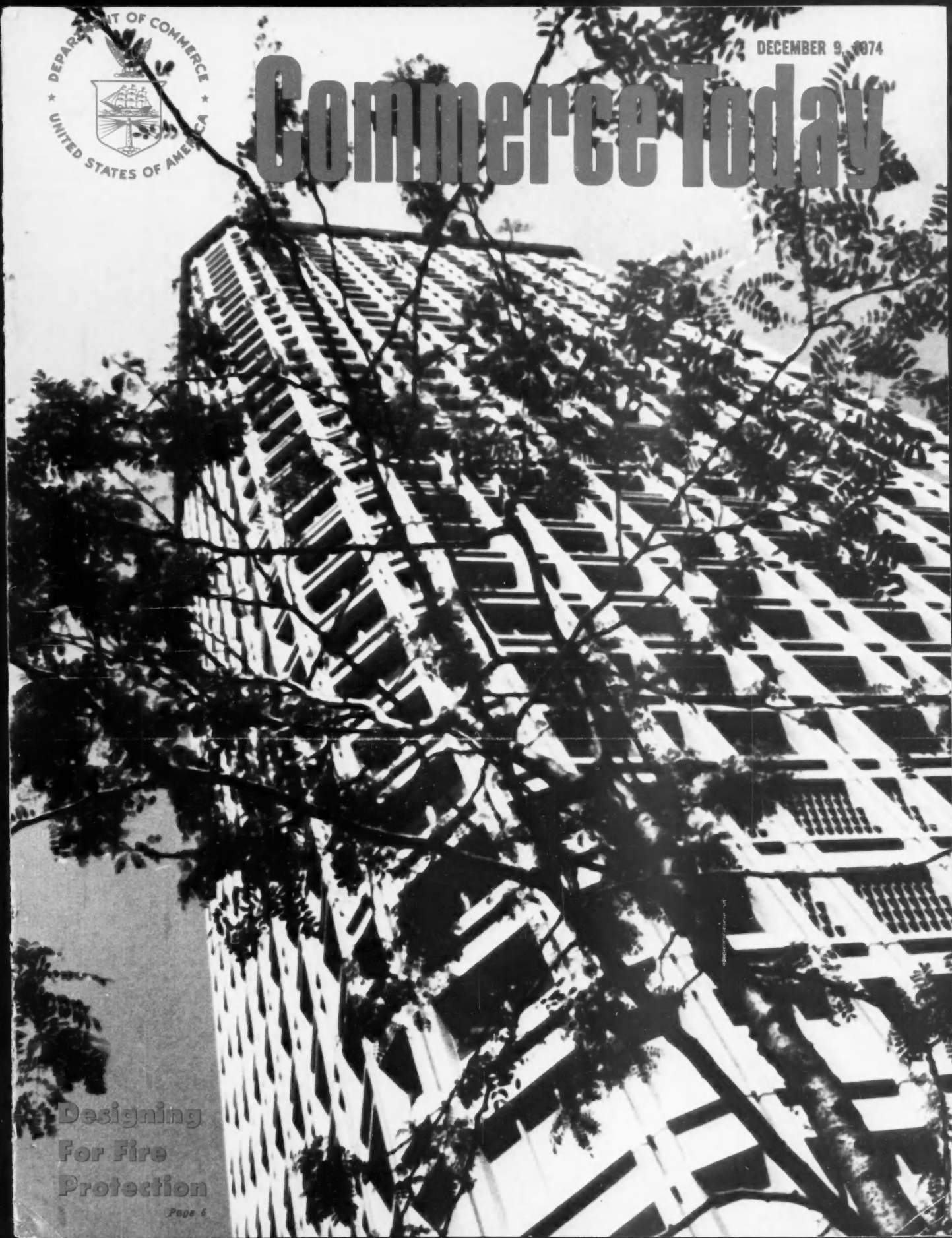
DECEMBER 9, 1974

Commerce Today



Designing For Fire Protection

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FROM THE SECRETARY

On Using The District Offices

This column was written by Under Secretary of Commerce John K. Tabor.

To make the hard decisions required by today's shifting economic conditions, businessmen increasingly need reliable, factual information—and they need it fast.

Where can they get it?

One of the best sources is any of the District Offices of the Department of Commerce. There are 43 of them in the nation's major industrial and commercial centers. As the Department's local representatives, they are backed by an organization of economic, social and scientific agencies that gather, analyze, process and store more information than any other similar body in the world.

Do you want to start an energy conservation program? Ask your nearest District Office about the "Energy Conservation Program Guide for Industry and Commerce" and other tools suggesting how to reduce your fuel consumption. They can literally be worth more than their weight in gold.

Do you want to sell a product to the Federal Government? Attend one of the Department's Business Opportunity Federal Procurement Conferences where you meet with procurement specialists from federal, civilian and military agencies and prime contractors. You'll go away fully informed on everything from how to prepare a bid to the sales opportunities available.

Determine the market

Are you trying to decide whether to expand your wholesale or retail operations? Ask your District Office to guide you to publications that will help determine the size of the market, market shares, allocation of advertising expenditures, alignment of sales territories, and store locations. You will be able to evaluate the direction and growth of any segment of the economy.

Do you want to sell abroad? A District Office can counsel you on:

—which products have significant export potential;

—what tools and services will enable you to determine which are the most promising markets; how best to penetrate them; with whose assistance (finance, insurance, freight forwarders); through what type of distribution channels;

—how trade fairs, shows, missions, can help;

—how to subscribe to a computerized service providing trade leads received from U.S. Embassies around the world;

—what firms abroad might serve as your agent or distributor;

—and many other services and tools that will enable you to be a successful exporter.

Information mine

Or do you want a copy of any of the 3,800,000 patents on file in the Patent Office, or one of the 800,000 publications available through the National Technical Information Service, or one of the 2,500 publications of the Census Bureau, or indeed any of the 25,000 publications of the Government Printing Office?

The Commerce District Office will help you. It commands the portal to the greatest mine of economic and technological information in the world. And it will guide you to it every step of the way. All you have to do is knock on the door. After all, you helped to pay for this vast resource of information. Don't let it go to waste.

(See Commerce Directory on inside back cover for the District Office nearest you.)

John K. Tabor

Commerce Today

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COVER: *This handsome 37-story, $42 million federal office building in Seattle, Wash., a model in fire-safety and control, incorporates in a government structure for the first time a total systems approach to the problem of preventing fire or containing or extinguishing it if it starts. Story beginning on page 5 tells how modern technology has been used in this high-rise and other federal structures to follow.*

Rising Profits During Economic Slowdown Attributed To Price Rises On Inventories

Economic Highlights is prepared by James L. Pate, Assistant Secretary of Commerce for Economic Affairs.

Although economic activity has been declining for three consecutive quarters, corporate profits continue to climb. This paradox—rising profits and declining economic activity—is largely explained by the effect of rapid price increases on business inventories.

Corporate book profits, which include profits resulting from increases in the value of inventories due to inflation, increased almost $19.5 billion in the third quarter of 1974 to a seasonally adjusted annual rate of $158.4 billion. Corporate book profits have increased 29 percent since the end of 1973. During the same period Real Gross National Product has declined almost 3 percent.

Inflation and accounting practices are responsible for most of the increase in book profits. When prices are rising, the value of goods held in inventory also rises. To the extent that first-in-first-out (FIFO) accounting is used to report inventories, rapidly rising prices result in a large excess of replacement cost over the original acquisition cost of inventories, i.e., inventory profits. Commerce's Bureau of Economic Analysis adjusts for the price effect on inventories by estimating the value of inventories on a last-in-first-out (LIFO) basis. In the third quarter of 1974, inventory profits were estimated at more than $50 billion (at a seasonally adjusted annual rate). By comparison, such profits were only $17.5 billion in the third quarter of 1973.

A switch from FIFO to LIFO dampens the impact of inflation on inventory accounting and, therefore, on the level of profits. Many companies are switching to LIFO accounting in order to reduce inventory profits and their tax liabilities. The shift makes the comparison of current profit figures with those for earlier periods difficult. Because of the accounting change, inventory profits figures for recent quarters and for the next quarter could be subject to considerable revision by the Department of Commerce.

When inventory profits are removed to calculate profits from current production, the third quarter results look quite different. Corporate profits from current production rose only slightly more than $1 billion (at a seasonally adjusted annual rate) in the third quarter of 1974 after declining by more than $2 billion in the second quarter. Third quarter profits from current production were virtually unchanged from the level at the end of 1973. By comparison, profits increased 14 percent in 1973, 17 percent in 1972, and 14 percent in 1971.

Corporate profits after taxes are also affected by inflation because taxes are paid on inventory as well as earnings from current production. Preliminary after-tax corporate profits for the third quarter of 1974 are estimated at almost $95 billion, an increase of $22 billion or 30 percent from the corresponding period a year ago. In the first three quarters of 1974, after-tax profits have increased about 41.5 percent at an annual rate. This compares with a long run average annual rate of increase of about 5 percent and an 8.2 percent per year increase from the third quarter of 1966, the last cyclical peak of after-tax profits.

Most of the increase in after-tax profits in recent years has been due to prices, however. After adjusting for prices, corporate profits after taxes were $58.6 billion in the third quarter of this year, an increase of 17.7 percent from the corresponding period a year ago. This is less than three-fifths as fast as the increase in current dollar profits over the same period. In the first three quarters of 1974, real after-tax profits have climbed about 26.5 percent at an annual rate, only about two-thirds as fast as the increase in current dollar profits for the same period.

Never before have corporate profits continued to rise so long after real GNP had started to decline. In fact, corporate after tax profits are considered a leading indicator of economic activity and normally start to decline sometime before total economic activity starts declining.

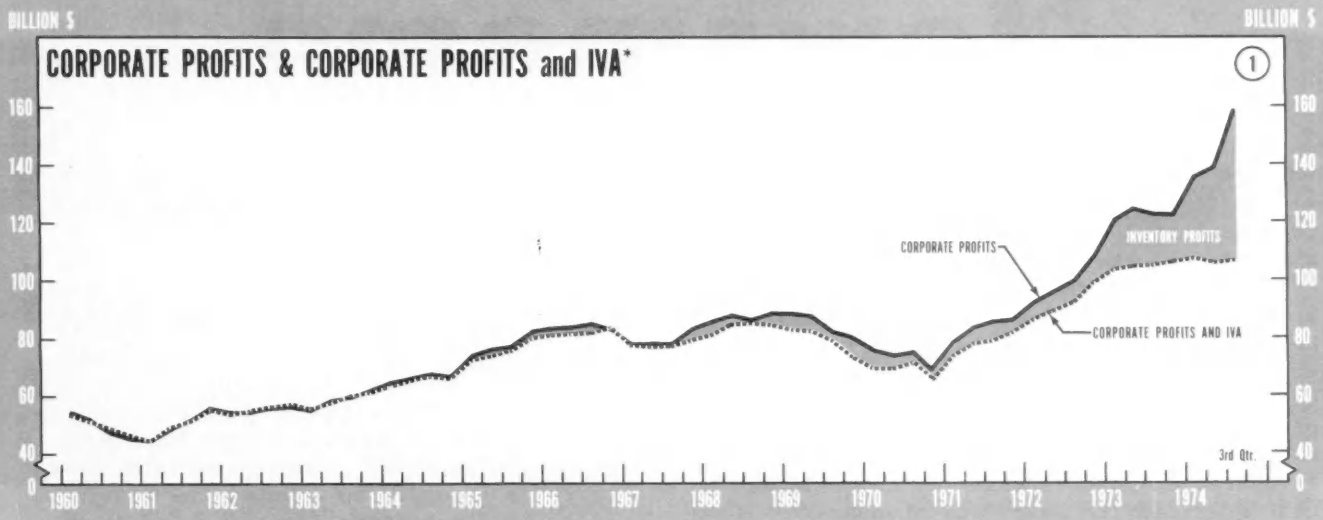
In addition to showing virtually no change since the end of 1973, the picture of corporate profits before taxes, as measured for purposes of the national income and product accounts, is not uniform among industries. The data are very sketchy, but there are indications that among nonfinancial corporations, which as a group have had relatively stable profits since the end of 1973, corporate profits in manufacturing and in transportation have increased in 1974. Within manufacturing, corporate profits in the nondurable goods sector have increased during the first three quarters of 1974 but have declined in the durable goods industries. Profits in trade, communication, and electric, gas and sanitary services have declined, in some cases quite sharply. The level of profits for nonfinancial corporations has been about unchanged in 1974.

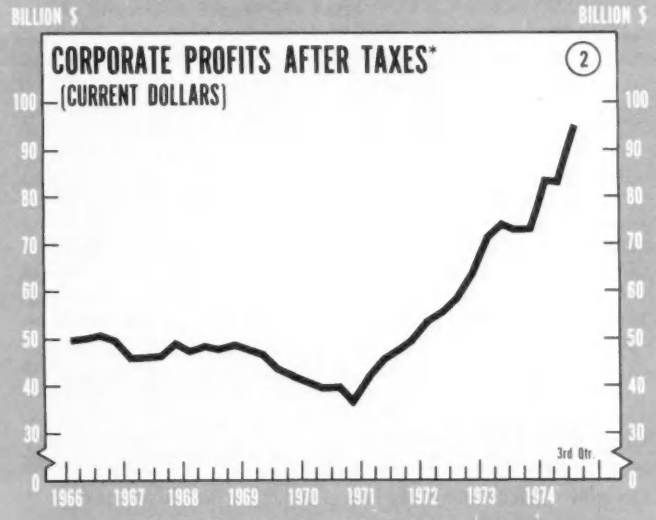
Corporate profit developments in 1974 to date reflect the major forces working in our economy this year. Thus, higher profits in the petroleum refining industry account for a very large part of the increased profits in nondurable goods manufacturing industries. Other gainers in the nondurable goods sector are paper and chemicals.

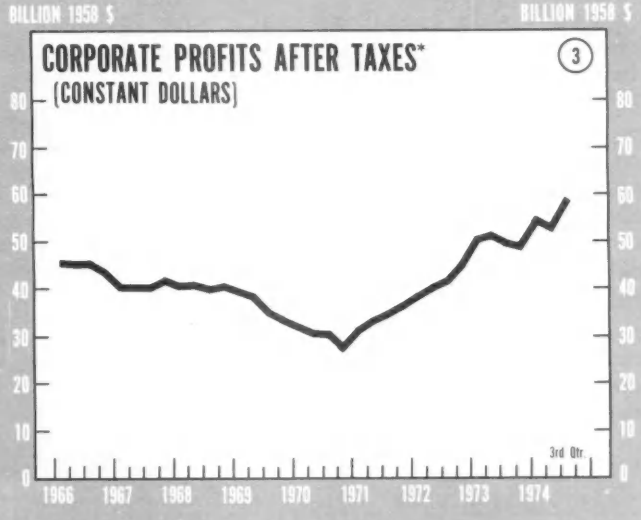
In durable goods manufacturing, the steepest decline has been in automobile manufacturing. All of the profit decline in motor vehicles in 1974 to date, however, occurred in the first quarter. The dramatic setbacks suffered by the American automobile industry over the past 12 months have undoubtedly had a profound effect on the U.S. economy during that period. At the same time, the vigorous demand for steel and other metals is reflected in higher profits in those two industries in 1974.

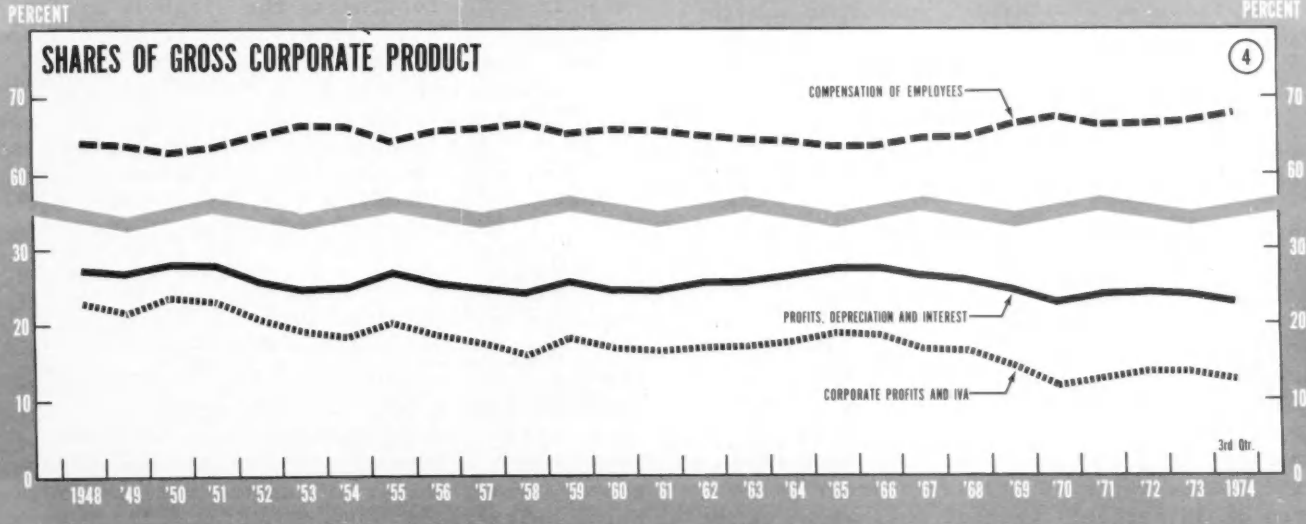
Although the share of gross corporate product going to profits plus inventory valuation adjustment (IVA) rose in the past three years (1971-73), the share has declined in 1974. Profits plus IVA were about 13.5 percent of gross corporate product in 1973. In the third quarter of 1974, the share was reduced to 12.6 percent. This decrease was approximately matched by an increase in the share of employee compensation.

Over the post-war years, profits as a share of gross corporate product have been declining and are now only about one-half as high as in the early 1950s. The share of employee compensation has increased slightly during the same period and so has the share of depreciation and interest, the latter being a return to capital, the share of this total is still less in the third quarter of 1974 than in the early 1950s. At the same time, the share of employee compensation in the third quarter was higher than at any time in the post-war years.









*Annual rates
All quarterly data seasonally adjusted

Newsmemo

Why are minority businesses significant allies for city planners and city-savers? Because they 1) increase the tax base; 2) provide employment; 3) have a vested interest in community renewal. The Office of Minority Business Enterprise in the Commerce Department has pledged its support to local efforts to halt central city drain caused by crime, dwindling markets and the flight of established firms to the suburbs. OMBE has minority business assistance centers now in operation in more than 100 communities that are ready to help city planners.

Merchant ship operators must recognize that the seaman, for centuries a doer of tasks, is now a supervisor of machines. This general conclusion underlies a new National Research Council study that urges a revamping of the work roles and social life of ship crews. Automation has reduced crew size even though ships are becoming larger. To improve efficiency, productivity and morale of seamen, the maritime industry must make changes based on a view of a ship as a "24-hour society," the study recommends. That means new work programs aboard ship, improved ship design, and new training, recruitment, retention and retirement approaches.

A first-ever Census Bureau study shows how differently Alaska's Eskimos, Indians and Aleuts live. Most are seasonal workers, far below the rest of Alaska's people on the income scale. Three of 10 young adults among these groups had finished high school, compared to eight of 10 for Alaskans generally. Compared to a U.S. median age of 28.1 years, the Eskimo median was 16.6; Indian, 18.5, and Aleut, 19.1 years. The population of Eskimos, Indians and Aleuts is about one-sixth of the total in the state.

The confectioner's current situation is anything but sweet. Many firms are being squeezed by deliveries on prior contract commitments that do not reflect the present greatly increased materials and production costs. Meanwhile the higher retail prices are affecting consumer purchases. One hard candy maker reported a third quarter sales drop of 33 percent. Another well-known candy producer has had to double its annual seasonal layoffs. Additional industry layoffs and some plant closings are expected soon.

Spending by national advertisers, one of the indicators of the state of the economy, is still holding up. The growth rate of about 5 percent in the 1968-73 period will be exceeded this year. Although sales are declining in many major sectors, many companies are increasing their spending on promotional activities in order to counter the declining trends. Ad expenditure increases are attributed to media rate increases as well as to some real growth. Expenditures through the major media--for example, television, radio, newspaper and magazines--should reach $14.4 billion this year, up 6 percent over 1973.

U.S. makers of integrated electronic circuits, already active in the Japanese market, get a boon this month--lowering of import barriers. Even before this liberalization, the U.S. producers had moved their share of all Japanese IC purchases up from 25 to 30 percent. U.S. success in this market stems from technological leads and competitive pricing.

Rail freight traffic is holding up this year, but truck tonnage is showing a declining trend. Rail ton-miles for the week ending Nov. 2 were 1.9 percent above the comparable week in 1973, continuing the slightly rising totals for 1974 as reported by the Association of American Railroads. Intercity truck tonnage, on the other hand, for the week ending Nov. 2 was 9 percent below the comparable week in 1973. As reported by the American Trucking Associations, truck tonnage stayed above 1973 levels during the first quarter of 1974, but fell off in the second and third quarters.

"Look to Alabama Mr. Industrialist" is another state effort to attract plant investment from abroad. Alabama tells its story in German, Japanese and English--five minutes reading time to describe six major investment attractions. Publisher is the Alabama Development Office, State Office Bldg., Montgomery, Ala., 36104, or Kasthoferstrasse 50, Bern, Switzerland 3006.

Commerce Today
Vol. V, No. 5
December 9, 1974

Systems Approach Gives Built-In Fire Safety To Federal Buildings

A new 37-story, $42 million federal office building in Seattle, Washington, marks a highly important step in the growing effort to reduce the nation's tragic losses by fire. A model in fire-safety and control, the new high-rise incorporates in a federal building for the first time a total systems approach to the problem of preventing fire or containing or extinguishing it if it starts.

The structure is a milestone achievement of the General Services Administration (GSA), the Federal Government's landlord, builder, and caretaker. While it is designed primarily to meet the needs of the federal agencies in Seattle, it includes fire-safety as a central objective. The safety system was engineered following an international conference on fire-safety in high-rise buildings sponsored by the GSA in 1971, and links together in a coordinated, interacting system some of the most up-to-date technology on fire control.

The building is nearly 500 feet high, contains a gross area of 854,000 square feet, and is expected to house about 3,000 employees from 30 federal agencies. Workers in the building are asked to change some of their basic habits and thinking patterns, to learn the building fire safety system, and to be assured that they will be safe if they follow instructions,

Avoid using elevators

One thing they are asked not to do is to rush to the elevators to get out of the building in case of a fire alarm. Automatic elevators have been death traps in some cases, because they have sometimes taken people to the fire floor and held them there. An elevator control system in the Seattle building guards against this. Moreover, evacuation of tall, high-rise buildings is impractical. Instead of evacuation, safe areas are provided in the building to which people can go.

"This is the first of a new breed of federal buildings," GSA Administrator Arthur F. Sampson said in an address before the fall meeting of the National Fire Protection Association (NFPA) in Seattle. "It's the first full-scale example of a new approach to fire safety."

At the formal dedication of the building, Sampson pointed out that in late October Congress passed the 1974 Federal Fire Prevention and Control Act establishing in the Department of Commerce an agency whose purpose is to reduce losses of life and property through better fire prevention and control. At present, an estimated 12,000 lives and $11 billion in property are lost in the United States each year by fire, an unenviable record not equalled by any other major industrialized nation even on a per capita basis.

Dr. Joseph E. Clark, Acting Administrator of the National Fire Prevention and Control Administration, says he is now working on plans to cut the nation's fire losses in half within a generation.

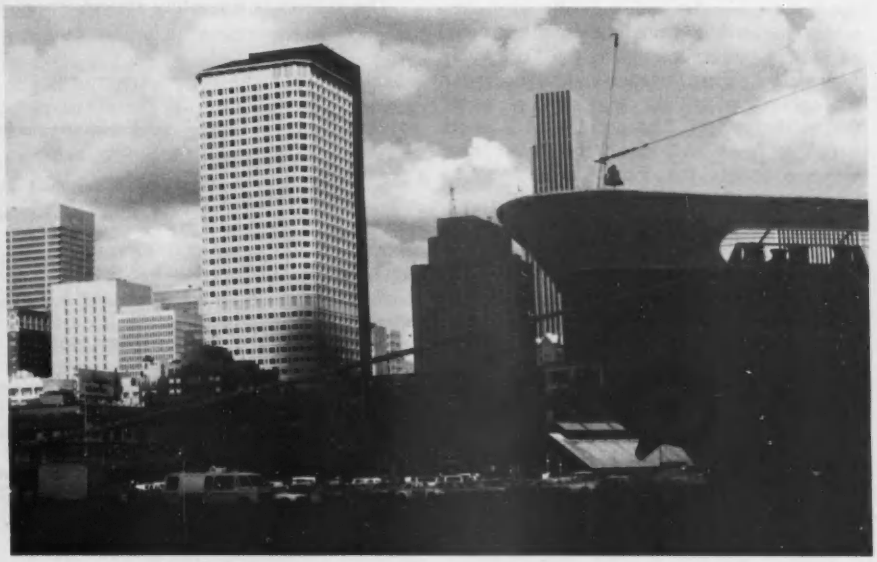
The fire-safety system in the new Seattle building is designed to achieve two basic objectives: to limit the size of any fire that may break out in the building; and to protect the building occupants against the maximum potential of a fire. All of the features of the system are designed to accomplish these purposes.

The nerve center of the system is an emergency communications control center which will automatically receive information about fire or other emergencies, evaluate the situation and take appropriate action. But the most important feature of the system is said to be its network of automatic sprinklers which spread throughout the building and are set to douse a fire when the heat level reaches a certain point and either to quench it or keep it under control until the municipal firefighters can get there.

Here is how the system would work in case of fire:

Notice of the fire would be received at the control center, either by report from a person or by automatic action of the system's fire detection devices.

To facilitate reporting of fires by persons, fire-alarm stations are established throughout the building. The person pulls the familiar red handle, and the central control operator hits the fire-alarm button for the reporting floor. Meanwhile, the reporting individual picks up the red hot-line phone



NEW FORWARD STEP IN FIRE SAFETY—*The new 37-story Federal Building in Seattle, Washington, now open for occupancy, for the first time incorporates in a federal building a total systems approach to controlling and suppressing fire which kills 12,000 Americans annually, far more on a per capita basis than in other major industrialized nations.*

NERVE CENTER—*The Central Control Room in the new Federal Building in Seattle is equipped with a two-way communications system capable of receiving and transmitting messages. Notice of fire or emergency is sent to this room either by a person or automatically, and in case of fire the Seattle Fire Department is instantly alerted. Instructions are sent from the room to building occupants, advising them to go to designated safe areas.*

and gives detailed information about the fire to the central control operator. In this way, the system amplifies the effectiveness of the local firefighters. Response times in actual Seattle fire department tests put firemen on the top floors in three to five minutes from the initial alarm.

Whether or not a fire is reported by a person, the building's electronic devices are set to turn in an alarm. This could be done by smoke detectors positioned throughout the building, or by action of the sprinklers which meanwhile would be in the process of putting out or controlling the fire. Water flow detectors are located within the water piping system to spot any flow of water within the system. The opening of a single sprinkler head will cause the water flow alarm to notify the control center and to summon the Seattle Fire Department.

The smoke detectors would not automatically activate the sprinklers, but the latter would start if fire or flame reached a significant level. Sprinklers would go into action only at the location of the fire, not throughout the building. A special water pumping station and supply tank are located within the building to assure an adequate supply of water to the sprinkler heads.

In the control center, a building silhouette display board will show the location and type of any alarm reaching the center. This feature will be a major help to firemen or to others responding to a fire or emergency.

When firemen arrive in response to an alarm, the battalion chief goes to the control center through a direct ground floor entrance. Firemen and a building security officer operate elevators manually, riding to the floor below the alarm. They can connect hoses inside the main office areas or in the stairwell. Phone jacks are located throughout the building so firemen can talk directly to their battalion chief in the control room. A fire department radio is installed permanently for the use of the battalion chief. During fire fighting operations, the battalion chief works with the control operator.

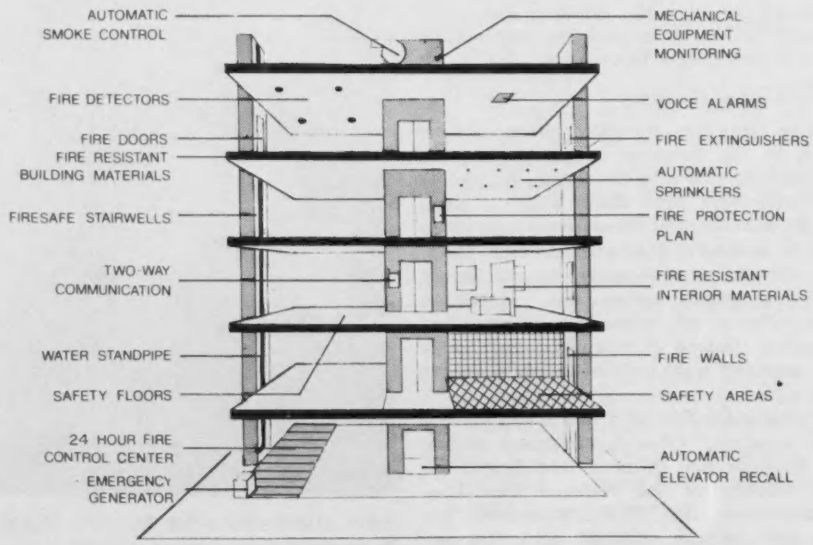
The building's fire-safety system includes smoke control. By use of the building ventilation systems, it is possible to confine contaminated air to the fire area and to maintain normal atmosphere in other areas.

In addition to fire suppression, the system provides for notice to the control center of other emergencies, such as personal illness or injury, burglary or intrusion, bomb threats or natural disasters, or loss of utility service. To report an emergency, a person is instructed to pull down the blue handle at the alarm station, and to pick up the phone and describe the condition to the control center operator.

The system involves a well-ordered plan for people safety. A major feature is a two-way communication system through the control center. Should a fire or other emergency be reported, all building occupants are alerted through the public address system. A high-pitched signal will be the first indication that a message will be forthcoming, and that it may be necessary to move to another floor. Building occupants are told to pay careful attention to broadcast directions.

Whenever there is a building alert, the elevators will switch to automatic control and will return to the exit floors. In case the elevator is on the way up, it will go to the next landing, stop, and then return without stopping to one of the building's lobby floors. If a person is going down, the elevator will continue down to the first floor lobby or the fourth floor lobby without stopping. In either case, the person in the elevator is directed to listen to the broadcast and follow instructions.

If a fire should occur on the 16th floor of the building, for example, the 15th, 16th, and 17th floors would receive a message directing the people on these floors to safe areas within the building. The 14th and 18th



DESIGNING FOR FIRE-SAFETY—*New Seattle building incorporates these special features.*

floors would receive a message that people will be coming into their areas, that they are safe where they are and should remain there, pending further instructions.

People moving to different floors will be instructed to use the stairways, and not to try to use the elevators. Where physically handicapped persons would have to be moved, special arrangements would be made.

Directions to building occupants from the control center are pre-recorded and broadcast automatically. At the same time, the orderly operation of the system will require that certain persons be in charge, and that drills be conducted from time to time.

Occasionally, there may be false alarms. But in any case building occupants are asked to follow the directions at all times, since it will be to their benefit to do so.

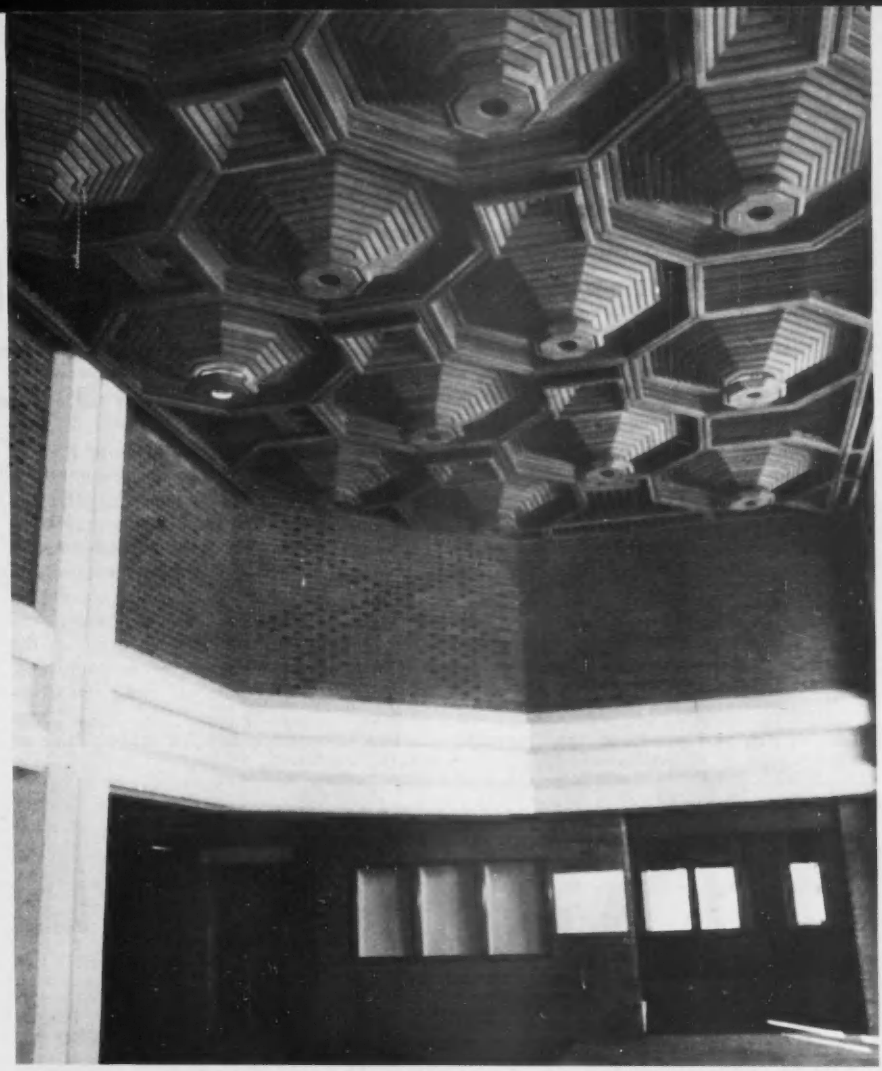
Systems approach is answer

GSA Administrator Sampson explains that about 25 new buildings are being developed with a total fire-safety system based on the GSA systems approach, and that other new techniques are being applied to a great number of buildings which may not need a total systems approach or are too far along in construction for a massive design change. All high-rise construction will include a fire-safety engineer as part of the design team and each building will have its own fire-safety system, designed to fit its individual needs.

The next step in the introduction of the systems approach in fire-safety will be in the Richard B. Russell Federal Courthouse and office building in Atlanta, Georgia, a 24-story structure with more than one million square feet of floor area. This building will represent the first instance in which extensive use of a coordinated systems approach has been applied to a building in its early stages of design and carried through to completion in the final design package.

Sampson explains that fire-safety is part of an overall GSA program which seeks to integrate disciplines, merge technologies, and to produce optimum facilities. A perfect example of this, he says, is the federal building designed for Manchester, New Hampshire, which not only will include fire-safety but will be an energy conservation test project which is expected to have far-reaching effects on energy conservation technology. It comprises an experimental design, Sampson says, which can save up to 40 percent in energy use and which will be instrumented by the National Bureau of Standards to measure its energy savings. This will be a seven-story building.

A two-story federal building to be erected in Saginaw, Michigan, will combine environmental clean-up techniques with energy-saving features. The Saginaw low-rise will include these features: a park on the roof, open to the public at all times; sidewalk and outside building panels made from crushed bricks which formerly were part of old buildings on the Saginaw site; lawn sprinklers that will use recycled building water; and a solar screen to manufacture its own energy for hot water needs, as well as to heat a major portion of the building.



SPRINKLER AND SMOKE DETECTOR SYSTEM—*Structure in ceiling enclosing sprinklers and smoke detectors which operate manually is regarded as the most important feature of the fire-safety system. It can activate an alarm and begin putting out the fire before firemen arrive.*

Aside from designing and building fire-safety into new structures, GSA is upgrading fire protection in older buildings under its control. The GSA staff has estimated that several hundred million dollars of significant fire protection work is needed to bring existing GSA buildings to advanced fire-safety standards.

With regard to the cost of fire-safety, Sampson says he thinks that over a period of time designers and builders will discover that there is an answer to this problem.

Integrated system

"That answer is the systems approach," he says, "an approach which incorporates new fire-safety systems in the heart of building design, an approach which eliminates redundant requirements, in short a system that can give improved safety at no substantial increased cost. Our Seattle building is a good example of the attractive economics of the systems aproach.

"If this were a regular building, we figure that we would have spent about $800,000 on fire-safety features. When we decided to incorporate additional elements such as voice communications and sprinklers, the projected cost rose to $1,421,000. Thus the cost of added features would have been about $621,000 if we had just added them on. But of course we didn't.

"We redesigned from the start, integrating the fire-safety system with other building elements. In doing that, we found some tradeoffs. We eliminated fire dampers and fire-rated corridor walls, and we modified fire-proofing requirements. We got a saving of about $524,000 in that.

"So the net cost, the real cost of the sophisticated features in this building, is only $97,000 . . .

"I think the forces in the market place will themselves advance the systems approach to fire-safety in time."

Government Drive Hits Possible Privacy Abuses By Its Computers

As 1984 draws closer, the Federal Government is taking a giant step backward from all that is signified in the George Orwell novel of that name. A very high-powered committee, with a very active staff, is drawing up a program to safeguard the personal information on 150 million Americans that is scattered in more than 7,000 federal computers throughout the country.

In short, Big Brother is looking the other way.

Formerly headed by President Ford when he was vice president, the Domestic Council Committee on the Right of Privacy includes the heads of the government agencies which are most involved in gathering and storing data on individuals: the Secretaries of Treasury, Defense, Commerce, Labor and HEW; the Attorney General, the Directors of the Offices of Management and Budget, Telecommunications, Policy, and Consumer Affairs, and the Chairman of the Civil Service Commission. When confirmed, the new vice president will chair the Committee.

The Committee has initiated studies of a broad spectrum of privacy concerns including the government's use of mailing lists, the use of social security numbers, the impact of electronic funds transfer systems, and consumer fears about threats to their right of privacy.

Not involved in the Committee's activities are the subjects of wiretapping and electronic surveillance, because they are under study by the Congressionally-created National Commission for Review of Federal and State Laws relating to the two subjects as authorized by Title III of the Omnibus Crime Control Act of 1968.

COMMUNITY LOOK-IN—*It's not the Super Bowl that these fellows are looking at, but the face of a U.S. Government computer. A strenuous drive is under way to protect confidential information about individual citizens which is stored in Federal Government computers.*

The problem

It is a many-sided problem and the Committee's early efforts consisted largely of attempts to get a handle on it . . . to define the dimension of the problem and identify its component parts. The solutions must satisfy all the individual problem components. It is an empty exercise to pass legislation that is technologically impossible to implement. Similarly, it is just a technological tour-de-force to design equipment or procedures that are too costly to use.

There are, of course, many facts which modern government must know in order to function. As a result, a vast store of personal data has been built up over the years.

The same process has been at work in the private sector, where computers and modern data technology have placed vast quantities of personal information in the hands of bankers, employers, charitable organizations and credit agencies.

That data brings with it a responsibility to guard against abuses.

On the positive side, the availability of this information serves us all in many important ways. Actually, no modern industrial society can survive without computers and data processing—and especially a society with high living standards and even higher expectations such as ours.

Without computer technology, it would, for example, be extremely difficult to process and deliver 27 million Social Security checks every month, to send out veterans' benefits, and to ensure that Medicare payments are properly made.

Law enforcement agencies would have considerably more trouble combating new

and sophisticated criminal activities without the use of the latest technical developments in the data field, whether in helping to trace stolen goods, or in helping to track down and identify criminals.

In the private sector, the banking industry could not even start to cope with the vast volume of personal checks which are issued and cashed daily without using computer technology.

However, in employing computers for the overall public good, care must be taken to protect the individual's private rights. There is ample evidence that this is not being adequately done. In too many cases unrestricted or improper use of personal information is being made.

Dangers are subtle. They often appear in the guise of highly beneficial applications of technology to make our lives efficient and productive through collecting more detailed information about individuals, when no adequate protections have been developed to assure the accuracy of such information and to avoid its misuse.

In some instances, the information itself is inaccurate and has resulted in the withholding of credit or jobs from deserving individuals.

In other cases, obsolete information has been used, such as arrest records which have not been updated to show that the charges made against an individual were subsequently dropped or the person found innocent. Many times, the citizen is not even aware of what information is held on record, and if he wants to find out, he either has nowhere to turn or else does not know where to turn.

Whether such information is provided and used by the government or the private sector, the injury to the individual is the same. His right to privacy has been seriously damaged, sometimes beyond repair. Frequently, the side effect is financial damage, but it sometimes goes further. Careers have been ruined, marriages have been wrecked, and reputations built up over a lifetime destroyed by the misuse or abuse of data technology in both private and public hands.

A human problem

Until the day comes when science finds a way to prevent the misuse of computers by people, Americans must develop human, personal safeguards that prevent computers from being the unwitting means of depriving some of this country's citizens of some of their most basic rights, in addition to the right of privacy.

Of course, the computer iself is simply a tool which can be used or abused by people. It is always human fault—whether deliberate or accidental—which produces the problems which some people have come to associate with computers. It is in this area—possible misuse by humans—that any reform effort must concentrate.

The Fair Credit Reporting Act of 1970

The Fourteen Points of Privacy

The Domestic Council Committee on the Right of Privacy is considering 14 initiatives involving possible Federal Government actions strengthening individual Americans' right to privacy. In addition to the 14 listed below, studies currently under way could result in five or six more initiatives.

The Committee on Privacy is considering proposals that:

- Federal agencies prepare privacy impact statements for data processing or communications systems planned to contain personal data and file such statements for public inspections 30 days BEFORE starting the design and procurement of such systems.
- The National Bureau of Standards accelerate the development of standards for safeguarding the security and confidentiality of personal information in computer systems.
- The Office of Consumer Affairs propose a Declaration of Individual Rights of Privacy in Consumer Transactions. Businesses would be asked to voluntarily subscribe to Fair Information Practices protecting the privacy rights of any consumer.
- The Committee endorse the privacy provisions of the proposed Cable Communications Act of 1974 which would prohibit TV cable operators from disclosing personally identifiable information about cable subscribers without a court order.
- Any individual on a mail list maintained by a federal agency be given the right to exclude his name from lists made available for dissemination outside the Federal Government.
- The Committee encourage Internal Revenue Service efforts to improve security and confidentiality of taxpayer data and to develop comprehensive new legislation placing greater restrictions on access to tax returns.
- The Office of Management and Budget require each executive agency to employ procedures assuring that people are not asked questions about themselves or others without first being told clearly whether they are legally required to answer and what uses will be made of their answers.
- The Committee request concerned federal agencies to undertake special studies of the potential impact on personal privacy of electronic funds transfer systems for handling consumer financial transactions.
- The Committee endorse principles embodied in the Office of Management and Budget draft bill requiring each federal agency to permit individuals to inspect records about themselves and correct or amend inaccurate information, with some exemptions for records relating to national defense and security investigators.
- The Committee endorse and support passage of an acceptable revision of a Senate Bill prohibiting military surveillance of civilian political activity, and providing penalties and remedies for violations.
- The Committee request the Civil Service Commission to prepare proposed legislation or executive orders which would protect the privacy of civilian employees of the Executive Branch.
- The Committee support legislation assuring rights of access to school records for students and parents, and to provide appropriate safeguards against disclosure of such records to third parties.
- The Committee support the basic concepts of legislation now proposed which would prohibit all governmental authorities from obtaining information in records of financial institutions without a court order or subpoena, an administrative summons, or unless the customer authorizes such a disclosure.
- The Committee endorse legislation to amend the Fair Credit Reporting Act to require that consumers be notified of any consumer-reporting file established on them (except one resulting from a credit application); to require that consumers have access to the information about them in a consumer-reporting file, and the right to challenge its accuracy; to require that consumers be notified of adverse action taken by virtue of credit or investigative reports about them; to require that consumers authorize, in writing, investigative reports about them; and to require that consumers authorize, in writing, collection of potentially sensitive medical information about themselves.

For more information on Committee activities, write: Domestic Council Committee on the Right of Privacy, Room 740, 1800 'G' St., NW., Washington, D.C. 20504, (202-395-3254).

took a major first step toward protecting the victims of erroneous or outdated information. It requires that an individual be notified when any adverse action, such as denial of credit, insurance or employment, is taken on the basis of a report from consumer-reporting agencies. It also provides citizens with a method of correcting these reports when they contain erroneous information. Items which are challenged as inaccurate by the person about whom the information is maintained must be reinvestigated by the maintainer of the file and corrected. If after reinvestigation the dispute is not settled, the agency must include a brief statement from the subject describing the dispute.

The Congress has pending before it more than 140 bills dealing with privacy issues. Legislation endorsed by the Privacy Committee has already passed the Senate to control the maintenance and use of sensitive records about pupils in our schools. This session may consider bills to regulate the information practices of the Federal Government, the collection and dissemination of criminal history records by states and the Federal Government, and protection of data on taxpayer returns submitted to the Internal Revenue Service.

Both the House and Senate have passed related bills in the privacy area.

Both bills provide for fair information practices in the Federal Government, with the following main provisions:

- Require agencies to notify the public about the information they maintain concerning individuals;
- Require agencies to maintain data with such accuracy, timeliness, and completeness to insure fairness in determinations being made about individuals;
- Require agencies to inform individuals if information requested is a required or voluntary disclosure;
- Give individuals the right of access to information maintained about themselves;
- Require agencies to have procedures enabling individuals to contest and correct inaccuracies, and
- Require agencies to maintain accounting of disclosures made outside the system.

An amendment to the Senate bill, proposed by Sen. Barry Goldwater of Arizona, would prohibit using Social Security numbers to create what amounts to a universal identification system. A conference committee will resolve the differences between the two.

The Senate bill further requires that a study be conducted of private organizations' information systems to determine the extent to which they achieve the Act's purposes. It also would establish a Privacy Commission to enforce the legislation. The House bill contains neither of these provisions. These differences between the Senate and House versions are being worked out in a conference committee.

To demonstrate his continuing commitment, President Ford recently issued a statement expressing his delight at the prospect of House and Senate action in the current session of Congress, and pointing to the need for still further progress.

"Renewed national efforts to strengthen protections for personal privacy should begin in Washington. We should start by enacting uniform fair information practices for the agencies of the Federal Government. This will give us invaluable operating experience as we continue to examine and recommend needed actions at the state and local level and in the private sector," the White House statement said.

"The immediate objective should be to give every citizen the right to inspect, challenge and correct, if necessary, information about him contained in federal agency records and to assure him a remedy for illegal invasions of privacy by federal agencies accountable for safeguarding his records. In legislating, the right of privacy, of course, must be balanced against equally valid public interests in freedom of information, national defense, foreign policy, law enforcement, and in a high quality and trustworthy federal work force. . . .

"The adequate protection of personal privacy requires legislative and executive initiatives in areas not addressed by H.R. 16373 and S. 3418. I have asked Executive branch officials to continue to work with the Congress to assure swift action on measures to strengthen privacy and confidentiality in income tax records, criminal justice records and other areas identified as needed privacy initiatives by the Domestic Council Committee on the Right of Privacy."

More to come

Further legislative initiatives are being prepared for the next sessions of Congress by the committee staff.

Cable television is an example. Technology now makes possible two-way interactive communication in cable TV systems. The citizen in his home will be able to communicate with his library, bank, school and participate in special meetings of his town or club from his own living room. The privacy implications for the subscriber to such systems are enormous.

The Administration is considering draft legislation that would prohibit "snooping" and monitoring of communications entering and leaving a citizens' home via cable television. It would forbid disclosure of identifiable information about the viewing habits of subscribers to cable television systems without their consent. Such safeguards are essential to prevent the abuses of a "wired society" and to assure that advancing technology remains the servant of society's most cherished freedoms.

While serving as Committee chairman during his vice presidency, President Ford and the Committee took an active role in setting its goals and priorities. He was instrumental in shelving a proposed computer system, known as FEDNET, which would have linked federal agencies into a wide information network allowing the General Services Administration to obtain personal information from the files of many federal departments. FEDNET would have involved the largest single governmental purchase of data communication equipment in history. "I felt that federal protection of individual privacy is not yet developed to the degree necessary to prevent FEDNET from being used to probe into the lives of individuals," the then-vice-president said.

"Before building a nuclear reactor, we design the safeguards for its use. We also require environmental impact statements specifying the anticipated effect of the reactor's operation on the environment. Prior to approving a vast computer network affecting personal lives, we need a comparable privacy impact statement."

All procurement for FEDNET has been cancelled.

Local governments active

State and local governments have also been active in this area. The city of Wichita Falls, Texas, has enacted an ordinance designed to protect computerized personal data, and the National Association of State Information Systems (NASIS) has been active in seeking to formulate model legislation in this area.

In 1974 some seventy bills concerned with protection of individual privacy were pending in the fifty state legislatures. Passage of any significant number of these bills along with passage of some of the bills introduced into Congress could easily result in an unacceptable morass of conflicting requirements on service industries, technology and regulatory or judicial organizations. Some national coherence must exist for any realism to be present in arriving at security in automation adequate to protect individual privacy.

Many public and private statistical organizations which collect data also have shown an awareness of their own responsibility to prevent unfair disclosure and to eliminate inaccurate or obsolete data.

Thus, a commendable start has been made. Now it is up to the Privacy Committee to continue to provide overall direction and momentum. In this regard, a series of 14 very forceful initiatives listed with this article have already emerged from the Committee.

Among them was a recommendation that no agency establish an automated information system without specific adherence to such guidelines to protect the confidentiality of sensitive information about individuals. The Office of Consumer Affairs was asked to prepare a draft of a declaration on individual rights to privacy in consumer transactions. Businesses would be asked to adopt it as a voluntary statement of fair information practices.

Report Lists Privacy Safeguards

The National Bureau of Standards recently took another step toward guaranteeing the privacy of American citizens with release of a report containing comprehensive suggestions for safeguarding the privacy of individuals in computer-based record-keeping systems.

The proposals were made by legislators, managers, industrialists and technologists who took part in a conference on Privacy and Security in Computer Systems held at NBS earlier this year.

In releasing the 72-page report, Dr. Ruth M. Davis, Director of the NBS Institute for Computer Sciences and Technology, said, "By disseminating the views of the conference speakers, we are continuing our efforts to stimulate actions on the part of responsible groups which can help resolve the difficult problems of data confidentiality and computer security."

The conference on which the report is based was the second of two sponsored by NBS to highlight the problems which governmental managers face in protecting confidential data, and the actions needed to provide effective safeguards against the misuse of such data.

The two conferences were attended by 886 persons representing the Congress, state legislatures, local government, the computer industry, trade associations, professional societies, universities, and public interest groups.

The report titled *Approaches to Privacy and Security in Computer Systems* (NBS Special Publication 404), is for sale by the Superintendent of Documents, Washington, D.C. 20402 for $1.20. Order by S.D. Catalog No. C13.10:404.

Other matters which are scheduled for immediate attention include protections against indiscriminate use of names on mailing lists available from the Federal Government, and evolving a policy for the release of information about individuals.

Additional privacy initiatives may result from current projects concerned with Social Security number policy and safeguards for statistical and research information. New projects are also being launched concerned with privacy protections for employment and health records, and with ways to restrain or control more effectively the gathering of personal information by federal agencies.

Implicit in many of the legislative or administrative regulations for safeguarding privacy that are now under consideration is the expectation that computer technology will respond to the requirements for more effective control of personal information. However, the fact is that today's computer systems often *cannot* respond effectively.

Current technology does not, in general, possess the security characteristics that are needed to prevent the unauthorized use of the system or improper alteration of the data it contains. For example, improved hardware and software technology is needed to: (a) control the automatic capturing, entry, processing and retrieval of data, particularly in systems that are shared by many different users, (b) identify persons who are authorized to use the system, and (c) protect data from being intercepted and altered while in transit among computer systems and terminals.

It is generally acknowledged that as new technological safeguards and access controls are added, computer systems will become more expensive. Thus, in the absence of economic incentives, individual privacy and computer security will be achieved principally through legislative or regulatory requirements, and through technical and administrative standards and guidelines which can provide the basis for consistent and widespread implementation.

The Commerce role

Commerce's National Bureau of Standards is uniquely situated to play a major role in the development of standards and guidelines for computer security. It is the only agency authorized to establish automatic data processing standards for use by the Federal Government. Although this authority does not extend to the private sector, actions taken within the Federal Government exert considerable leverage upon industry and upon all computer users to adopt similar practices because the Government is the largest single user of computers in the world.

As a federal center for computer sciences and technology, NBS also occupies a key position in consulting with and providing advice and assistance to state and local governments, service industries and the computer industry in stimulating and orienting the development of new technology, and encouraging its innovative application.

Since the results of NBS work are publicly available and will have been developed in conjunction with industry and with other governmental bodies and service organizations, the benefits can readily be extended into all areas in the public and private sector where a similar potential for security enhancement exists. In short, the work will facilitate the consistent application of technological safeguards to protect personal privacy, while at the same time assuring that legitimate demands for access to information systems are met.

In addition to drawing up workable safeguards, NBS will also attempt to estimate the cost involved in their implementation.

Paying the privacy piper

Paying for privacy and security is not new to the American people, which already is voluntarily paying for many types of privacy and security in phone listings, airline travel, recreation, housing, commuting travel, health, and education.

Some 15 percent of the 100 million telephones in the United States have unlisted phone numbers. The American public is currently paying $135,000,000 for this right of privacy.

Airlines now publicly advertise their passenger rates by stating the fare "plus a nominal security charge." The United States has more private "back-yard" swimming pools than any other country.

Advertisements for real estate place great emphasis on the privacy afforded in the properties offered for sale. There is a measurable and direct correlation between price and the degree of privacy.

The question of allocation of these costs between the supplier industries, the service industries, the consumer public and the government has rarely been directly addressed. However, it is obvious that the cost allocations vary widely.

The Federal Government, for example, shares with the consumer the costs of privacy in education, health and travel. The consumer generally bears the entire costs of privacy and security in recreation, housing and phone listings.

The allocation of costs to guarantee individual privacy in information systems maintained by the credit and banking industry should presumably be handled differently than the costs of ensuring privacy through security and confidentiality safeguards imposed on government information systems.

Under any circumstances, an important action that needs strong support now is the determination, service-by-service, of the costs of individual privacy and decisions on how to allocate these costs.

Keep things in perspective

"In dealing with troublesome privacy problems, let us not scapegoat the computer itself as a Frankenstein's monster," President Ford told an audience while serving as Committee chief. "But let us be aware of the implications posed to freedom and privacy emerging from the ways we use computers to collect and disseminate personal information.

"It is not the technology that concerns me, but its abuse. I am also confident that technology capable of designing such intricate systems can also design measures to assure security."

'In' But 'Out' Foreign-Trade Zones Merit Community Attention Today

In the eyes of the general public, they blend into the surrounding scene: a warehouse in the Brooklyn Navy Yard, wharf terminals in New Orleans and Toledo, industrial parks in western Puerto Rico and on the Mexican border at McAllen, Texas.

To local officials they are very much a part of their communities' economic scene. In their development programs they represent additional opportunities to generate jobs, build tax receipts and increase overall commercial activity.

To the nation's foreign traders who have Customs costs to reckon with, however, they have a special character and special significance that sets them apart.

Eighteen of these unique facilities are currently available at U.S. ports of entry. They are U.S. Foreign-Trade Zones—geographically and legally within the country, but for Customs purposes outside of it.

Operated as public utilities by qualified corporations, the zones are established under grants of authority from the Foreign-Trade Zones Board, which is chaired by the Secretary of Commerce. They function under U.S. Customs supervision. Foreign and domestic merchandise can be brought into them for such operations as storage, exhibition, assembly, processing or manufacturing.

In connection with the opening of one of the newer U.S. zones, in Kansas City, the operator there recently listed about 25 business advantages for potential users. In doing so, he provided a useful definition of a foreign-trade zone from the standpoint of a businessman. Some of these points follow:

- Imports may be landed and stored quickly without full customs formalities. U.S. quota restrictions, duty and bonding are not applicable in the zone.
- Cash flow can be improved because duty is not paid until goods leave the zone. If goods are exported, U.S. Customs duty payments are not required. Merchandise may be withdrawn in less than case lots or in other partial amounts.
- Insurance on goods in zone storage can be limited to value alone plus ocean freight, rather than value plus freight plus duty plus taxes paid.
- Buyers may inspect and sample goods displayed in a zone showroom, before purchase and payment of duty.
- Orders for goods may be accepted in the zone before payment of duty or excise tax, if such tax is applicable.
- Goods may be processed or manipulated to qualify for lowest duties or freight charges, and duties may be avoided on damaged or substandard items.
- Goods may be altered, re-labeled or re-marked to meet federal or local requirements or to avoid fines for improperly marked merchandise, and samples may be withdrawn to submit to Customs for proper classification.
- For products manufactured in a zone a choice is offered: the rate of duty or quota limitation on the finished product entering U.S. trade channels may be applied to the finished product—that is, the percentage of which is of foreign origin—or to the foreign materials in the finished product.
- Goods in excess of U.S. import quotas may be imported and held in the zone until the next quota period, since such quotas do not apply in the zone.
- Goods subject to a U.S. quota can be imported into a zone and fabricated into a product not subject to quota limitations.
- Salvage or repair of damaged goods may be carried out to maximum market advantage, duty and quota free.
- Certain bonded merchandise may be transferred to the zone for export, canceling the bond or time limit applicable to bonded warehouses, and making possible immediate recovery of taxes already paid.
- On goods destined for export, recovery of U.S. Customs duty or of certain state taxes can be made upon entry into the zone.
- Merchandise stored in a zone has an added protection against theft, since it is in a facility under Customs security supervision.
- Posting of bond for missing documents can be avoided, since merchandise can be held in a zone until the documents are located.
- Indefinite zone storage permits traders to await the best U.S. market conditions, or if U.S. buyers are found unreceptive, offers the option of shipment elsewhere.
- For small shipments out of zone—under $250—duty may be paid to the U.S. Customs Service with minimum formalities.

Historically, foreign-trade zones are decendants of the free ports that thrived in the days of the Hanseatic League. The cities participating in that trading union had special status that placed them outside the customs territories of their governments. This created an environment that assisted freer trade and commerce. In time the special area-wide customs privileges of these cities were withdrawn, but in their place was established in the port areas a series of mini-freeport sites, given the name of free trade zones.

It was in 1934 that the United States got around to authorizing free trade zones. Congress chose to call them "foreign-trade zones." The U.S. concept is modeled somewhat after the vestigial free port zones of Hamburg and Copenhagen in northern Europe.

U.S. Customs procedures normally require that when foreign goods arrive here they must be entered with Customs officials within five days, and, unless special steps

ZONE IN HONOLULU HARBOR—*This general purpose facility was established in 1965; its sponsor is the Hawaii Department of Planning and Economic Development. It offers 180,000 square feet of covered terminal space and an open area of 58,000 square feet for warehousing, exhibition and processing operations. The location is Pier 39 in Honolulu harbor.*

are taken, estimated duties must be paid at that time. If the foreign merchandise is not to be sold immediately in the domestic market there are exceptional procedures that allow a postponment and in some instances a reduction in Customs duties. The most commonly used exception is called entry under bond; another is the use of the foreign-trade zone.

Bonded goods may be stored in Customs-approved facilities for up to three years. If they are re-exported during this time no tariffs are paid. Otherwise the duties become due at the end of the term or upon entry for consumption. While in bonded storage, goods may be manipulated in limited ways but cannot be used in manufacturing operations. Bonded procedures are also available for transporting unentered goods from one port of entry to another.

The foreign-trade zone exception is wider than that of entry under bond, since it includes the possibility of using goods in assembly, processing or manufacturing.

Since the foreign-trade zone concept is based upon presumed benefits to the national economy, the apparent special inducement to importers has led the Foreign-Trade Zones Board to explain the zone's contemporary economic significance.

"The point to be made here," notes the board's executive secretary, John J. Da Ponte, "is that zones do not create imports. Foreign goods that come into the U.S. market through these facilities do not come solely because of zone procedures. A wider range of economic factors is involved. What zones do, though, is to encourage the final processing of these goods in the United States before they enter the stream of commerce, instead of in the country of export. This means that domestic labor, facilities, materials and components can be used at least to some extent on articles that might otherwise have been imported as completely finished products ready for final sale."

All manufacturing operations in foreign-trade zones are examined in advance for their impact on domestic industry and the U.S. balance of payments, as well as the effect they might have on other government programs, including those that regulate imports. The Foreign-Trade Zones Board has the authority to halt any zone operations that could be judged to be against the national interest, though this has seldom occurred.

A foreign-trade zone is an especially suitable place for export processing or manufacturing operations when high duty foreign components or materials are needed to make the end product competitive in markets abroad. While relatively high U.S. labor costs have up to now kept this type of zone use at a low level, many domestic firms are re-evaluating the feasibility of setting up operations abroad and a growing number of foreign firms are establishing plants in the U.S. so that an economic basis for an increase in manufacturing for export from zones is emerging. Whether zone activity is practical in individual cases is, of course, to be determined by a cost-benefit analysis on a product-by-product basis. Up to now the export side has accounted for about 15 to 20 percent of zone activity.

Zone users are eligible to receive "export status" on domestic goods prior to their actual shipment abroad. This benefit applies in situations where some kind of government credit accrues upon the expor-

INLAND AND UNDERGROUND—*Zone Site No. 2 in Kansas City, Mo., is an underground storage and processing facility operated by the Great Midwest Corp. It is similar to Site No. 1 of the nearby Kansas City, Kans., zone. Both facilities are sponsored by the non-profit corporation, Greater Kansas City Foreign-Trade Zone, Inc. The zone was authorized in 1973.*

U.S. Foreign-Trade Zones

The list below provides address and management information on each of the U.S. Foreign-Trade Zones in current operation:

Zone No. 1, New York City—Brooklyn Navy Yard, Brooklyn, N.Y. 11205, Henry Friedman, telephone 212-834-0400. City-sponsored warehouse and processing facility in Bldg. 77 of the Navy Yard, with approved zone area of 145,000 square feet.

Zone No. 2, New Orleans—P.O. Box 60046, New Orleans, La. 70160, Robert Dee, 504-897-0189. Port-sponsored zone at the New Orleans Napoleon Ave. Open Wharf on the Mississippi, with 19 acres containing warehouse and processing facilities.

Zone No. 3 and Subzone 3-A, San Francisco—Ferry Building, San Francisco, Calif. 94111, Paul Hartman, 415-391-8000. Port-sponsored facilities consist of two warehouses with 115,000 square feet of warehouse processing space and a special purpose subzone.

Zone No. 5, Seattle—P.O. Box 1209, Seattle, Wash. 98111, Robert O. Edwards, 206-587-4824. Terminal warehouse with 37,000 square feet of zone space is sponsored by the Port of Seattle at its Terminal 20 facility.

Zone No. 7, Mayaguez, Puerto Rico—G.P.O. 2350, San Juan, P.R. 00936, Alfredo Salazar, Jr., 809-767-4747. 44-acre industrial park with buildings and lots for lease sponsored by Puerto Rico Industrial Development Company.

Zone No. 8, Toledo—3332 St. Lawrence Drive, Toledo, O. 43605, Walter T. Zeplien, 419-729-3704. 130,000 square feet of warehouse processing space situated within the sponsoring Port of Toledo's 135-acre general cargo facility at the mouth of the Maumee River on Lake Erie.

Zone No. 9 and Subzone No. 9-A, Honolulu—Pier 39, Honolulu, Hawaii 96817, Homer A. Maxey, Jr., 808-548-5435. Sponsored by Hawaii's Department of Planning and Economic Development, 220,000 square feet of terminal space at Pier 39 for warehousing, exhibition and processing.

Zone No. 10, Bay County, Michigan—Bay County Bldg., Annex No. 1, Bay City, Mich. 48706, James W. McGowan, 517-894-4562. Warehouse within 2.6-acre port facility sponsored by Bay County Board of Commissioners.

Zone No. 12, McAllen, Texas—P.O. Box 1988, McAllen, Tex. 78501, Kenneth M. Nickerson, 512-682-4306. 40-acre industrial park on Mexican border with buildings and lots available sponsored by McAllen Trade Zones, Inc., a non-profit economic development corporation.

Zone No. 14, Little Rock, Arkansas—Little Rock Port Authority, Little Rock, Ark. 72206, D. A. Schmand, 501-372-4114. Warehouse facility adjacent to industrial park on Arkansas River sponsored by the Arkansas Department of Industrial Development.

Zone No. 15, Kansas City, Missouri—2440 Pershing Road, Kansas City, Mo. 64108, Victor C. Studley, 816-421-7666. Site No. 1—250,000 square foot warehouse. Site No. 2—2.8 million square feet in underground warehouse processing facility. Site No. 3—Warehouse complex with 57,000 square feet of warehouse processing space near Kansas City International Airport. All sites sponsored by Greater Kansas City Foreign-Trade Zone, Inc., a non-profit corporation.

Zone No. 16, Sault Ste. Marie, Michigan—Sault Industrial Park, Sault Ste. Marie, Mich. 49783, Ward W. Martindale, 906-632-2126. A 17-acre zone within 57-acre industrial park with buildings and lots available, sponsored by Michigan Department of Commerce.

Zone No. 17, Kansas City, Kansas—2440 Pershing Road, Kansas City, Mo. 64108, Victor C. Studley, 816-421-7666. Site of 405,000 square feet within underground warehouse processing facility, same sponsor as Zone No. 15.

Zone No. 18, San Jose, California—City Hall, San Jose, Calif., Stanley Twardus, 408-277-4000. Site has 30 acres within 500-acre industrial park with buildings and lots, sponsored by City of San Jose.

Two applications are pending involving zones at Omaha, Nebraska, sponsored by the Omaha Dock Board, and at Portsmouth, Virginia, sponsored by the Virginia Port Authority.

tation of goods from the U.S. One example is the Customs "drawback" procedure, which allows the recovery of Customs duties paid on foreign materials used in the manufacture of a domestic product that is exported. For purposes of "drawback" goods are considered exported at the time they enter a zone if they are committed for export. This is controlled by Customs, which treats the entry as "zone restricted merchandise," a category of goods that cannot be brought back into Customs territory.

One function that free trade zones and other special customs facilities perform in international trading is to reduce some of the unintended distorting economic consequences that customs laws can bring about. They allow operations to take place in the home country that otherwise might have been located abroad for purely customs reasons.

U.S. businessmen will find these special customs facilities available in most nations. Industrial countries have zones that, like those in the U.S., are involved essentially with customs benefits. In these countries duties usually exist not as a means of raising revenue, but to assist the domestic industries in competing with imports.

Making exception for goods that will not soon, or ever, compete in the home market is thus natural. Zones in developing nations, on the other hand, tend to offer a wider range of benefits, since they usually operate in conjunction with capital investment incentive programs.

Citing the fact that business today is carried on in a global arena—with international trade up 500 percent over the mid-60s, and foreign direct investment vastly increased in all the industrialized countries, especially lately in the United States—Da Ponte urges U.S. communities not to consider zones in a vacuum but as one of many investment incentives available in worldwide business.

"If competitive cost factors dictate the use of foreign content in goods to be sold in the U.S. market, we are better off having the product at least assembled here," he observes. "In addition to the jobs gained in having imports processed here, more domestic components than otherwise will inevitably be used in such situations. Exports and reexports from the U.S. are also likely to be generated.

"In short, today's complex economic setting makes it necessary for communities wishing to attract commercial and industrial development to consider the whole spectrum of investment incentives and provide the necessary ones.

"The consideration being given to foreign-trade zones should thus not be seen as an isolated effort. It is a reflection of the concern of state and local officials and the service sector of the business community in providing the best possible business climate—taking into account the area of international trade—to assure a healthy economy."

Energy Management Digest

TURNING SWORDS INTO ATOMS?...The Federal Energy Administration has awarded an $85,000 contract to study the suitability of an abandoned Oklahoma military reservation for development as a diversified energy park. The contract calls for Battelle Memorial Institute to conduct the study, first of its kind, at Camp Gruber, near Muskogee. The projected energy park could include both nuclear and traditional fossil fuel facilities. It would also serve as a site for energy-intensive industries, such as uranium-enrichment plants, that would benefit from the location. The Camp Gruber study will be the first to consider combining nuclear facilities with those of other fuels, and also locating heavy energy users on the same site. FEA is also currently negotiating with a university consortium for a study of the suitability of Glasgow Air Force Base in Montana for location of advanced and synthetic energy facility sites.

PUBLIC HEARING ON REFINING CAPACITY...The Federal Energy Administration is holding a public hearing on issues relating to U.S. petroleum refining capacity. Issues covered at the Dec. 9-11 event will include the adequacy of existing capacity, the quantity of new capacity needed over the next five years, where it should be located, and the problems involved in refinery siting. The hearings will take place in Room 3000A, Federal Energy Administration, 12th Street and Pennsylvania Avenue, N.W., Washington, D.C., 20461. Testimony is expected from representatives of industry, government, environmental groups and the public. The hearings are being coordinated by the Energy Resource Development Section of FEA, which is considering these issues in light of its mandate to increase production of domestic energy sources.

COLD WEATHER ENERGY SAVERS...Consider the advantages of a clock thermostat which will automatically turn the heat down just before retiring and turn it up just before you awaken...In buildings with electric heating, consider a heat pump system. The heat pump uses outside air in both heating and cooling and can cut electric heating costs by as much as 60 percent.

IMPORT GOALS...President Ford's goal of reducing U.S. oil imports one million barrels per day by the end of 1975 means the U.S. economy is expected to operate on a 6 percent reduction in total petroleum supplies. Hardest hit will be those industries not capable of switching to other fuels.

TRADE ASSOCIATIONS...Commerce Secretary Dent recently met with trade associations whose members represent industries using over half of the nation's energy. He recommended that each association begin an industry-wide energy management and reporting program within its membership. Participants were given copies of the Energy Conservation Program Guide for Commerce and Industry (EPIC: GPO order C-13.11.115) and "Energy Management: Trade Associations and the Economics of Energy" (available from Office of Energy Programs, U.S. Department of Commerce, Washington, D.C., 20230) as tools useful to any association beginning an energy program.

ENERGY CONFERENCE...The American Management Association, in cooperation with the Department of Commerce, sponsored a recent two-day energy conference entitled "Energy Management: Federal Plans and Guidelines for Private Industry" in Arlington, Va. This important meeting, coming at a time when the U.S. faces its most critical energy situation, presented 23 top government and industry leaders who explored ways for business to trim energy waste and save money. Secretary Dent was the keynote speaker.

FIRST ANNIVERSARY...The National Industrial Energy Conservation Council (NIECC) will hold its fifth meeting December 18 in Washington. This will mark the first anniversary of NIECC, which was established by Secretary Dent to advise him of problems and programs within business and industry dealing with energy conservation. The 24-member Council assisted in the development of the Energy Conservation Program Guide for Industry and Commerce know as EPIC, the development of a public awareness kit for small businesses soon to be released, and a new movie Energy: Critical Choices Ahead.

Plan Could Save U.S. Industrial, Commercial Buildings Over $1 Billion Annual Energy Cost

U.S. commercial, public and industrial buildings would use 25 percent less energy for heating, lighting, cooling and operating under a newly-introduced voluntary program proposed by the Federal Energy Administration. Anticipated savings to the owners of such buildings could total well over $1 billion.

About 10 percent of all energy used in the United States is consumed in these buildings.

President Ford emphasized the energy-saving potential in this sector when he specifically mentioned commercial and public buildings among his priority conservation targets to the Congress on October 8.

Estimated potential savings through nationwide compliance with the 25 percent cut would amount to about 90 billion kilowatt hours in electricity alone by next November—or more than a year's supply of electricity for the cities of New York, Philadelphia and Detroit combined. At an average cost of 1½ cents per kilowatt hour, annual savings to end-users would amount to a total of $1.35 billion.

This conservation action will not only aid in achieving energy self-sufficiency and help curb inflation, but also will help building owners and occupants reduce their operating costs.

Essentially, FEA proposes voluntary adoption of non-uniform lighting standards, temperature adjustments and other energy-saving operating methods to reduce demand for both electricity and fuels.

The recommendations are contained in a FEA publication, *Lighting and Thermal Operations Guidelines for Commercial, Public and Industrial Buildings*, which suggests that illumination levels be kept at 50 footcandles at desks and other work stations, 30 footcandles in rooms and work areas, and 10 footcandles in non-work areas, such as halls.

A footcandle is one lumen of light per square foot produced on a surface one foot away from the light source, or approximately the light given off by one candle a foot away from the surface. Portable meters are available for measuring lighting levels by footcandles.

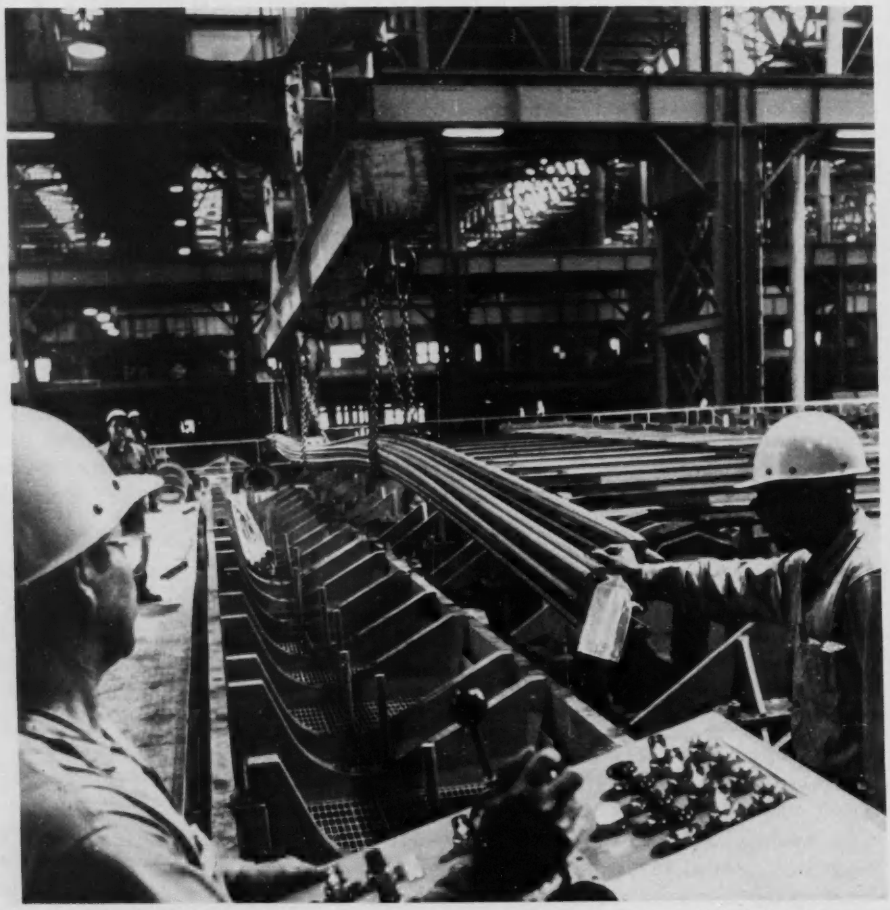
Temperature control guidelines call for no more than 68 degrees during the heating season and no less than 78 degrees on days requiring air conditioning. Exceptions are covered in the guidelines.

"We all have grown accustomed to more light, heat, and air conditioning than we really need," said FEA Administrator Sawhill in announcing the program. "We have documented this in many federal buildings where reductions in energy use in accordance with the Guidelines have ranged from 15 to 42 percent without discomfort to employees."

A number of these case studies are contained in another new FEA brochure, *Building Energy Reports*, issued in support of the conservation program.

The program will be carried out largely through FEA regional offices. Regional representatives will acquaint businessmen, state and local government officials, trade associations and architects and engineers with the program and the techniques involved in implementing the voluntary standards.

Copies of the *Lighting and Thermal Operations Guidelines* and *Building Energy Reports* are available from Conservation and Environment, Office of Commercial and Public Buildings and Lighting, FEA, Federal Bldg., Room 7149, Washington, D.C. 20461 (202-634-7610), or FEA Regional Offices listed on page 18.



WIDE OPEN SPACES—*A 25 percent reduction in energy used to heat U.S. industrial, commercial and public buildings is the goal of a recently-proposed voluntary program.*

Seminar Seeks To Ease Path For Joint Industrial R&D Efforts In Energy Conservation

A major government-industry seminar in Washington next week could affect the scope and pace of industrial participation in the national effort to achieve energy self-sufficiency.

The conference is designed to explore—and possibly identify acceptable approaches to overcoming—existing "institutional and legal constraints to cooperative energy research and development" by both government-industry groups and by temporary alliances of multiple private firms.

The seminar, to be held December 16 at the State Department, is being jointly sponsored by Commerce's Office of Science and Technology, and by the Industrial Research Institute. The latter is a non-profit organization, founded under the auspices of the National Research Council, whose 236 member companies represent a major portion of the total industrial research effort of the United States.

Many experts, both in government and the private sector, feel that only by such joint ventures can some of the potential new or improved energy technologies be developed speedily, because of the high risk and large capital investment involved.

But some industrial firms have reportedly felt that such things as government patent policies regarding inventions resulting from government-supported private research, and antitrust regulations pose major barriers to such joint efforts.

Options covered

Areas of research and development to be discussed cover a number of energy options—fossil fuels, nuclear fuels, geothermal, solar and other potential sources of energy.

The meeting will be chaired by Dr. Betsy Ancker-Johnson, Assistant Secretary of Commerce for Science and Technology. Attendance is limited to 300 representatives of industrial firms and government agencies. Preregistration is required.

The seminar evolved from a recommendation by the Commerce Technical Advisory Board (CTAB), a permanent group composed of about 20 leading executives, scientists, engineers, and educators. Dr. Ancker-Johnson, CTAB's chairman, said:

"The Board members share the opinion of a number of industry and government experts that some of our new energy technologies will not be developed rapidly unless joint ventures are created to share the high risk and large capital investment involved. Such ventures could include both industry-government and multi-company activity.

"The Board . . . initiated a study of industry's perceptions of the legal and institutional constraints to cooperative research and development."

A center of discussion at the conference is expected to be a report prepared by William Carey, Vice President of Arthur D. Little, Inc. and a member of CTAB. The report, which has received the Board's endorsement, considers the conditions under which research and development consortiums—temporary alliances within the industrial sector—"are feasible within antitrust enforcement ground rules."

"The conclusion," says Carey's report, "is that, with forethought and proper safeguards, R&D consortiums can be designed and operated at a low risk of antitrust challenge."

CTAB's report stresses that the Department of Justice "cannot be committed to a policy of absolute immunity for R&D consortiums . . . (and) . . . reserves the right to determine each case on its merits and on the facts."

But the report suggests that industry might be able to remain within antitrust regulations by planning joint ventures that would include such arrangements as:

(1) Multiple consortiums—that is, two or more combines of companies operating independently of one another in a competitive R&D effort;

(2) Competition within a single consortium;

(3) Stressing basic research—as distinguished from applied research wherein the risk of a restraint of competition is larger when sharing is involved;

(4) Balancing the mix of participation to include small or medium-size firms as well as large ones;

(5) Making proprietary rights to patents and trade secrets developed during the joint research available—on a reasonable basis—not only to consortium members but also to all qualified competitors, and

(6) Including representatives of public interest groups as observers and participants in consortium decision making.

For further information contact Florence Feinberg or Dr. Bruce B. Robinson at 202-967-5065.

Voluntary Restraint By Industry Could Head Off Mandatory Energy Curbs

Commerce Secretary Frederick B. Dent is reminding business leaders to take the lead in assuring the success of President Ford's voluntary energy conservation program in order to head off the possibility of mandatory federal allocation of energy supplies.

Speaking at a White House Conference on Domestic and Economic Affairs at the Radisson Hotel in Minneapolis, Dent declared: "Needless to say, a mandatory conservation program would necessarily involve government interference in private business operations and the dislocations which always accompany such interference."

"If you think wage and price controls were bad, just wait until you have tried to produce a product and run out of energy when you are 83 percent completed."

Dent told his listeners that business must assume leadership by setting realistic goals and following through with effective energy management. "You must monitor the results."

He said achievement of the short-term goal of reducing oil imports one million barrels per day in 1975 would save the United States $3.65 billion. Attainment of a 15 percent per unit of output energy reduction by industry by 1980 would save this country $9 billion per year.

Dent said the Commerce Department and the Federal Energy Administration have just concluded a series of meetings with six energy intensive industries which consume two-thirds of the energy used by U.S. industry.

Representatives of the six industries—iron and steel, paper, cement, petroleum refining, chemicals, and aluminum—have agreed to establish industry-wide energy conservation programs, including "setting specific conservation goals detailing the percent reduction per unit of output, with 1972 as a basis," Dent pointed out.

In addition, he said, four more energy intensive industries—baking, copper, glass, and meat packing—are being added to this effort.

"Experience indicates that this voluntary program of energy conservation can work successfully. The textile industry, through the American Textile Manufacturers' Institute, initiated a pilot program of this system, and in the past ten months they have reported unit of output savings of 7.5 percent. Their program includes a system of monthly reports," Dent said. "In addition, the stress on voluntary energy conservation has resulted in industrial energy use per unit of output being reduced 4 percent between October 1973 and June 1974."

He told his audience that "no solution to economic problems is possible without a solution to energy problems."

Heated Spaces Get Priority Under FEA Heating Oil Rules

Factories, home owners, apartment dwellers, office workers and other users of heating oil will again be asked to lower their thermostats this coming winter under new Federal Energy Administration regulations that became effective on November 1.

Lowering thermostats by six degrees in homes and apartments, and ten degrees in offices and factories was necessary during the oil shortages last winter, and FEA is asking for the same cooperation this year.

To promote continued conservation of middle distillate fuels, suppliers of those fuels for space heating are now required to have an energy conservation education program in effect. Under this provision, suppliers must communicate in writing at least twice during the heating season to their purchasers the need for energy conservation, and describe ways in which middle distillate fuels—home heating oil and diesel fuel—can be conserved.

The new regulation on middle distillate fuels establishes an allocation level of 110 percent of base period (calendar year 1972) use, subject to an allocation fraction. The allocation fraction is determined each month by the amount of fuel a supplier has and the amount his customers need.

However, to insure adequate supplies of heating fuel, no matter how much total supply may be available, the new regulation takes an extra step: If the supplier has less than a 0.8 allocation fraction, he can treat his space heating customers on a priority basis.

The supplier changes the formula by using 88 percent of the base period use (0.8 times 110 percent of the base period use) to figure out how much oil a customer using the fuel for heating purposes only should receive. After offering the fuel to his heating oil customer, the supplier then divides the remaining supplies among customers who use oil for other than heating.

Sample case

Here is how it would work:

A home owner used 100 gallons of heating oil in December 1972. His dealer, who has both space heating customers and non-space heating customers, discovers that for December 1974 his total supply of oil available for both purposes is only 70 percent of what he supplied his customers in December 1972. Under this regulation, rather than limiting the space heating customer to 77 gallons, the dealer would take away a sufficient supply of oil from his non-space heating customers so that his space heating customer would get 88 gallons of heating oil. When all the supplier's space heating customers are served, using the 88 percent rule, the non-space heating customers would receive an equal percentage of their share of the remaining fuel.

The new regulations also establish a final regulation in the method of allocating middle distillates to electric utilities. The rule affirms the present method of allocating utilities at 100 percent of their base period use, subject to an allocation fraction. If utilities need additional middle distillate supplies, they must apply for adjustments to their base period use.

"These adjustments will be granted only in exceptional cases where necessary to maintain reliable electric service," the ruling provides, adding "FEA may also at any time make downward adjustments to base period use."

The new regulation also adopts the rules proposed on Sept. 6 in regard to allocation levels for industrial (except for space heating) and petrochemical feedstock use.

Industrial users will now operate under an allocation level of 100 percent of current requirements, subject to the allocation fraction, instead of the 110 percent of base period use previously in effect. Petrochemical feedstock users will also have 100 percent of current requirements, subject to an allocation fraction, instead of the current 100 percent of base period use.

Price rises limited

In a related action, FEA announced that home heating oil and diesel fuel price rises will continue to be limited by its "special products rule," while gasoline prices will be freed from the rule. All three products are defined as "special products."

The agency also announced a new limit on the amount of previously unrecovered increased costs which refiners, resellers and retailers can pass through to the public in any one month.

The "special products rule" limits pass-throughs of increased costs by refiners of "special products" to their proportionate share of increased crude oil costs.

Prospects for increasing curtailments of natural gas deliveries this winter, which are expected to drive up demand for middle distillates (home heating oil and diesel fuel) led to the decision not to suspend protection of the "special products rule" for these fuels, as was proposed.

However, adequate gasoline supplies make continuation of the "special products rule" for gasoline unnecessary.

FEA also announced an amendment to its price regulations which limits the amount of "banked" costs refiners can recoup in a single month to 10 percent of their total "banked" costs as of October 31, or as of the end of any month thereafter, whichever is higher. A similar amendment applies to resellers and retailers.

"Banked costs" are increased product costs which are carried forward in accounting procedures for recovery in future months, instead of being passed on as an immediate price rise.

The amendment is designed to protect consumers against sudden large price increases in any single month.

FEA further determined that the proposed amendment to the regulations of September 10, which would have eliminated the carry-forward of unrecouped product costs and phased-out existing "banks" on a "take or lose" basis, is not now practicable. The agency concluded that a phase-out of existing "banks" might be inflationary—giving sellers incentive to recover the maximum amount of increased product costs as soon as possible.

It also concluded that elimination of "banking" provisions in the regulations is not possible until a program for equalizing crude oil costs among refiners has been implemented.

Regional Federal Energy Offices

Region 1 *(Maine, N.H., Vt., R.I., Mass., Conn.)*
150 Causeway Street
Boston, Mass. 02114

Region 2 *(N.Y., N.J., Virgin Islands, Puerto Rico)*
26 Federal Plaza
New York, N.Y. 10007

Region 3 *(Pa., Del., Va., W.Va., Md., D.C.)*
1421 Cherry St.
Philadelphia, Pa. 19102

Region 4 *(N.C., S.C., Ga., Fla., Ala., Miss., Tenn., Ky., Canal Zone)*
1665 Peachtree St., N.E.
Atlanta, Ga. 30309

Region 5 *(Mich., Ill., Wis., Minn., Ind., Ohio)*
175 W. Jackson Blvd.
Chicago, Ill. 60604

Region 6 *(Tex., La., Ark., Okla., N. Mex.)*
P.O. Box 2263
Dallas, Texas 75221

Region 7 *(Iowa, Kans., Neb., Mo.)*
811 Grand Ave.
Kansas City, Mo. 64106

Region 8 *(Mont., Wyo., N. Dak., S. Dak., Colo., Utah)*
P.O. Box 26247
Belmar Branch
Lakewood, Colo. 80226

Region 9 *(Calif., Nev., Ariz., Hawaii, Samoa, Guam, Trust Territories)*
111 Pine St.
San Francisco, Calif. 94111

Region 10 *(Wash., Ore., Idaho, Alaska)*
909 First Ave.
Seattle, Wash. 98104

Improved Home Insulation In Five Cities Is First Step Of U.S. Drive

Homeowners in five U.S. cities have been targeted as the first participants in a nationwide program to "Button Up" their heat-leaking homes. When expanded to nationwide scope, the effort could save this country the equivalent of 300,000 to 350,000 barrels of oil per day, or two percent of U.S. daily consumption.

In announcing the nationwide campaign, Roger W. Sant, the Federal Energy Administration's Assistant Administrator for Conservation and Environment, urged homeowners to "fight inflation with insulation." He said the five test cities would receive federal aid to help promote a program among homeowners to add attic insulation, install storm windows, install storm doors, caulk and weatherstrip their homes.

Test cities scheduled to initiate the program in the next 30 days include Minneapolis, Kansas City, and part of Greater New York City. Louisville, Ky., has already received money from FEA as a pilot city for the program.

The money is being awarded to initiate a program in each city to inform and encourage the public on how to "Button-Up."

Programs and strategies are being considered to assist handicapped, low income and fixed income homeowners in the five cities to "Button-Up," according to Sant.

"Of the 70 million residential units in America, at least 18 million single-family homes are not adequately insulated," Sant pointed out. The current program hopes to persuade 650,000 economy-minded Americans to button-up their homes this winter.

Target date: 1985

The ultimate goal is to have all the estimated 18 million residences that currently do not meet minimum insulation standards buttoned up by 1985, a move that could save this country the equivalent of 300,000 to 350,000 barrels of oil per day.

- Six inches or more of insulation in the attic could pay back its cost in less than one to two years, saving the homeowner up to 20 percent on fuel bills each month.
- Caulking and weatherstripping which might cost as little as $5 per home could save the owner up to 10 percent on household fuel bills per month.
- Storm windows and doors could pay for themselves in 3 to 15 years, and save up to 15 percent on heating-cooling bills per month.

These actions together could cut homeowners' monthly fuel bills in half.

"Not only would valuable oil and other energy be saved, but homeowners would pocket the savings," Sant said. 'In fact, this program offers all Americans the opportunity to respond to President Ford's challenge to become inflation fighters and energy savers."

"Button-Up" has the support in each city of a task force of prominent citizens, which is directed by a coordinator hired by the city. Materials suppliers, utilities, and home renovators are cooperating in campaign activities.

Indianapolis, which conducted its own city-wide energy conservation campaign during last winter's crisis, also will be among the first municipalities participating in FEA's Project Conserve, a computerized home improvement analysis for which pilot studies have been conducted in Danbury, Conn., and Topeka, Kan. Under that program, a computer is programmed to analyze patterns of energy use for heating and cooling individual homes; the results then are reported to homeowners, along with recommendations for improvements and their estimated costs.

INDUSTRY EXAMPLE—*Union Oil Co. of California president Fred L. Hartley (right) accepts a SavEnergy commendation from Eric C. Silberstein of Commerce's Los Angeles District Office. Standing is Paul S. Grandle, chairman of Union's energy conservation task force. Union's program is saving the equivalent of the electrical needs of 65,000 homes.*

Monthly FEA Energy Review To Provide Wide-Ranging Data

A new Federal Energy Administration publication, the *Monthly Energy Review*, will provide accurate and timely energy data to businessmen and other concerned Americans.

The new *Review* is designed for both general public and technical audiences. It contains extensive data on all major energy sources, petroleum price information, plus a section on electric utilities and resource development.

Special features include:

- An overview section which discusses and compares significant trends and developments in the energy field.
- Graphic displays of energy data.
- A glossary of energy definitions, explanatory notes on data sources and interpretation, and a table of units of measure.

The new publication contains the price data formerly available in FEA's *PIMS Monthly Petroleum Report* and its supplements, as well as the volume data formerly available in the agency's *Monthly Energy Indicators*. Both publications will be discontinued.

The first issue contains data on:

Crude petroleum: runs to stills, domestic production, imports, stocks, percentage of domestic production sold at controlled and uncontrolled prices, representative posted prices and actual cost per barrel of foreign and U.S. crude.

Total refined petroleum products: domestic demand, imports.

Motor gasoline: domestic demand, production, imports, stocks, average selling price, average purchase price, average dealer margin, retail gasoline price changes.

Jet fuel: domestic demand, production, imports, stocks.

Distillate fuel oil: domestic demand; production; imports; stocks; average prices, price changes.

Residual fuel oil: domestic demand, production, imports, stocks.

Natural gas liquids: production, stocks.

Natural gas: marketed production, domestic producer sales to major interstate pipelines, imports.

Coal: domestic consumption, production, exports, stocks.

Electric utilities: power production; consumption of coal, oil and gas; oil and coal stocks.

Oil and gas exploration: rotary rigs in operation, wells drilled, total footage of wells drilled, crews engaged in seismic exploration onshore and offshore, line miles of seismic exploration offshore and onshore.

The door to additional ideas for the publication's contents remains open, and readers are invited to send comments and suggestions to: Editor, Monthly Energy Review, Federal Energy Administration, Room 4530, New Post Office Bldg., Washington, D.C. 20461.

Monthly Energy Review is available in Room 220, Office of Communications and Public Affairs, Old Post Office Building, Washington, D.C. 202-964-3538.

Design As A Factor In Safety Stressed At Recent Failure Prevention Meeting

The importance of product design as a basic factor in product safety, as well as a means of controlling and reducing costs, was stressed at a recent meeting of top experts on prevention of mechanical failures at the National Bureau of Standards.

Emphasis was placed on case histories of material component and structural failures that threaten human and environmental safety and cause economic dislocations. The speakers talked on the theme "Success by Design: Progress Through Failure Analysis." Case studies analyzed ranged from "Solution of an Art Restoration Problem" to "Inflight Separation of an Airplane Wing."

Sponsors of the symposium, the twenty-first held of its nature, were the National Bureau of Standards, the Office of Naval Research, Frankford Arsenal (U.S. Army), the Naval Air Development Center and the Federal Aviation Administration.

Designer determines safety

Alan H. Schoem, of the Office of the General Counsel, U.S. Consumer Product Safety Commission, said that while top management ultimately is accountable in terms of product liability and government regulation for the safety of products manufactured under its direction "perhaps it is the product designer who should be accountable for the basic safety of the product."

Schoem reviewed the work of the Consumer Product Safety Commission, created by the 1972 Consumer Product Safety Act, and pointed out that the act transferred to the Commission jurisdiction over the Federal Hazardous Substances Act, the Poison Prevention Packaging Act, the Flammable Fabrics Act, and the Refrigerator Safety Act.

"Because the Consumer Product Safety Commission is a fact of life," he said, "and because the Commission has the authority to remove unsafe products from the market place and require manufacturers, distributors or retailers of the product to notify the public that a product of theirs is unsafe, industry must rethink its commitment toward safe products.

"It is likely that changes in attitudes toward product design will result. No longer can safety be considered an extra feature or a luxury that can be compromised for any number of reasons. Rather, consumer products must be designed with safety as an essential ingredient.

"The Commission realizes that safety cannot be the sole determinant in the manufacture of a product. An absolutely safe product that costs $1,000 and lasts one month is not a viable solution. But the Commission is willing to work with industry to insure that products will be designed with consideration for safety. If they are not, the Commission will not hesitate to use its authority and Congressional mandate to reduce the unreasonable risk of injury presented by those products."

Schoem recalled that the Commission is empowered to promulgate and enforce mandatory standards to insure safety. Thus far, he said, products for which the Commission has started proceedings to develop standards include architectural glass, power lawn mowers, bookmatches and swimming pool sliding boards. Other products, he said, for which there will soon be standards development proceedings include TV sets, space heaters, swimming pools, and extension cords.

"The burden is on the manufacturers of consumer products," he said, "to take action to insure that their products are designed safely. The Commission encourages voluntary action and will act to set mandatory standards only if a product presents an unreasonable risk of injury and if the private sector will not act or acts too slowly to remove the unreasonable risk."

Another tool the Commission has, Schoem said, is authority to go into court to have a product declared imminently hazardous. However, he said, the Commission has used this authority against only one product. This was a light with a soft pliable handle, he explained, with which one electrocution death was associated. The problem with this product, he added, was faulty design.

Defect notifications received

He said that to date the Commission has received 200 defect notifications under a provision of the Consumer Product Safety Act requiring notice from manufacturers, distributors, and retailers if they obtain information that a product could contain a hazardous defect.

"While not all of the notifications," he said, "have involved products which could create a substantial product hazard, and many have involved defects arising from quality control breakdowns and consumer misuse, a large number have involved products with design defects . . .

"To date every action taken in regard to notification, repair and replacement under the Consumer Product Safety Act has been done voluntarily. In two cases administrative proceedings were commenced but prior to their conclusion the companies involved agreed to take corrective action requested by the Commission."

Jacob Rabinow, National Bureau of Standards' Chief Research Engineer, expressed the belief that the number of parts needed for a machine could be predicted by analyzing its functions before the exact design was known.

"When one analyzes a machine," he said, "and finds it has more parts than necessary by function analysis, one should suspect that the design is far from optimum."

Rabinow said that most things manufactured in large volume end up costing twice the cost of the raw materials. If an item costs 100 times as much as the cost of the raw materials, he added, "that cost represents labor or some other cost which could be pared down by better design." When the cost has been pared down to where the device sells for something comparable to the cost of the materials, he observed, "it becomes uneconomical to design further cost reduction and the price reaches a plateau."

Nelson N. Shapter, of the Federal Aviation Administration, said the present wide-body transport planes, such as the B-747, DC-10, and L-1011, were designed to upgraded crashworthiness standards resulting from a major government-industry research program.

Flammability tests upgraded

One area of improvement which is being verified by tests, he commented, involves full-scale aircraft cabin flammability tests of improved fire-resistant materials. For many years, he explained, the primary purpose of tests for flammability standards was "to get the extremely fast-burning materials out of the cabin and to prevent the start of a major fire from common minor cabin sources, such as dropping a lighted cigarette."

Work started in the mid-1960s, however, he added, aimed far beyond this simple objective and sought to assess fire hazards "not only from the standpoint of flammability but of smoke and toxic gas emission as well."

"These tests are continuing," he said.

Shapter pointed to another program which, he said, seeks to realistically predict failure modes in the early design stages of an aircraft "so that design variations may be studied to optimize the structure for crashworthiness.

"The mathematical modeling," he added, "will result in programs that will take into account the plastic deformation of structural elements and the redistributions of internal loadings which result from these deformations.

"The programs will lead to choices of materials and structural shapes that will most efficiently dissipate the kinetic energy of motion, thus protecting the occupants as far as possible from severe decelerations."

Michael L. Marx and Jerry A. Houck, of the National Transportation Safety Board, told of a safety recommendation issued by the Board suggesting a simple design change to increase the structural integrity of a lower main spar carrying-through fitting, a fracture in which resulted in a fatal accident involving a Helio courier H-295 aircraft.

Industry Highlights

Machine Tool Firms Leading Metalworking Industry Surge

(Industry Highlights is prepared by the Office of Business Research and Analysis, Bureau of Domestic Commerce.)

Despite the general economic malaise, and in some instances because of it, shipments of metalworking machinery and tools are expected to continue their recent strong growth in 1975.

Metal cutting and metal forming machine tools, perishable cutting tools, dies, jigs and fixtures, and welding equipment all experienced healthy rates of activity during 1974, according to Robert J. Hunsberger of the Transportation and Capital Equipment Division.

Shipments of metal cutting and metal forming machine tools are projected to reach a record $2.1 billion in 1975, 10 percent greater than 1974. Metal cutting machine tool shipments in 1975 are expected to reach nearly $1.5 billion, an increase of 15 percent over 1974. Shipments of metal forming machines are expected to rise 8 percent to a record $610 million in 1975.

Shipments, backlogs high

The machine tool industry's order backlog increased significantly during the first half of 1974 as new orders continued to outstrip the rising rate of shipments. The industry entered 1974 with backlogs in excess of $2 billion; backlogs for metal cutting machine tools stood at $1.45 billion, while those for metal forming machines were $621 million. By mid-1974, backlogs had surpassed $2.6 billion with every indication that they would remain high for the remainder of the year.

Total activity of this industry, in addition to machine tool production, includes tooling, accessories, rebuilding, replacement parts, items purchased for resale, services, and secondary products. Total combined shipments of the machine tool industry are projected at nearly $3.6 billion in 1975, an increase of 12 percent from approximately $3.2 billion in 1974. Total output of the metal cutting machine group should reach about $2.5 billion of primary and secondary products in 1975, a 13 percent increase over 1974. Total shipments of primary and secondary products of the metal forming machine sector are expected to exceed $1 billion, up 8 percent from 1974.

Following the low period of 1971 and 1972, more metalworking equipment users have acted on the need to modernize their facilities and increase productivity. A scarcity of skilled manpower, increased costs of materials and components, and safety and environmental regulations compel users to invest in modern cost-saving manufacturing systems and machine tools.

There is a large market for machine tools necessary to modernize and replace obsolete industrial facilities, while new products and processes are challenging the inventiveness of the U.S. machine tool industry. There is also a good market in the expansion of productive capacity to meet the needs of an expanding world population and the expected long-range growth of real GNP here at home.

Profits, employment tight

Profits for machine tool companies may reach healthy levels in 1975, recovering from both the depressed state of the industry as late as 1972 and from the price controls in effect until early 1974. Judged by return on sales, net assets employed, and equity, machine tool company earnings are relatively low compared with other manufacturing industries.

Retained earnings in 1974 should provide a source of funds needed to modernize existing facilities and for vital research and development. The demand for machine tools will continue strong for the next several years and the industry should attract investment capital to help fulfill growth plans.

The need for more modern, productive equipment in the machine tool industry is heightened, as in all metalworking industries, by persistent shortages of skilled labor. Employment in the machine tool industry is not recovering from the depressed years of 1971-72 at a rate sufficient to keep pace with orders and shipments.

Skilled machinist and machine operator ranks are dwindling in all metalworking industries, but the problem is particularly critical in high precision industries such as machine tools. Skilled machinists are at a premium, and job enrichment and on-the-job training programs are not turning out machine operators at the needed rate.

Obsolescence a problem

The number of old machine tools operating in metalworking plants in the U.S. is seriously high. Machine tools over 20 years old increased 30 percent over a five-year period, according to a 1973 industry survey. The number of relatively new machines less than ten years old is only 33 percent of total machine tools in place. This is the lowest level of modernity recorded for U.S. industry since pre-World War II days.

Shipments of metal cutting and metal forming machine tools in 1980 are projected to reach nearly $3 billion, a 7.3 percent compound annual growth rate. Metal cutting machine tools are expected to exceed $2 billion in shipments for the first time with approximately a 7 percent annual growth rate for the period 1974-1980. Metal forming machine shipments are expected to rise at a compound annual rate of about 8 percent, with shipments reaching $900 million by 1980, also a record high.

Keen international competition

The remaining years of the 1970s will see a world expansion of the machine tool industry and an era of keen competition for international markets. This will be a period when technology and marketing management will be called upon to employ initiative and imagination in solving production problems for the industries they serve.

The long-term outlook for machine tools is very promising. There is a large market at home and abroad for new advanced machine tools necessary for increasing productive capacity and for modernizing, expanding and replacing existing industrial equipment. Additional growth in the use of machine tools can be expected for new processes and products coming into the market.

Finally, the large and growing overseas market offers continuing good sales prospects for U.S. machine tools in all industrialized and emerging countries.

Other segments of the U.S. metalworking industry will be treated in an upcoming issue of Commerce Today.

Commerce Officials Win Rockefeller Awards

Secretary of Commerce Frederick B. Dent has praised the contributions of two Department of Commerce careerists who have been awarded the prestigious Rockefeller Public Service Awards.

Speaking of honors conferred on Dr. Robert M. White, Administrator of the National Oceanic and Atmospheric Administration, and Dr. George Jaszi, Director of the Department's Bureau of Economic Analysis, Secretary Dent said:

"I admire and greatly appreciate the dedication, talent, and high degree of professional integrity that these two career public servants have displayed."

The Rockefeller Public Service Awards are the most lucrative and prestigious honors given annually to federal career officials. They carry with them $10,000 tax-free grants. The Awards were initiated and financed 22 years ago by John D. Rockefeller 3rd, and are administered by Princeton University's Woodrow Wilson School of Public and International Affairs.

WAITING TO GET IN—*Overflow crowds turned out daily at Expo '74 to see the spectacular 70mm film "Man Belongs To The Earth." The movie was shown on a screen 90 feet wide by 65 feet high, approximately the height of a six-story building.*

Expo '74 Exceeds Projections With Over 5 Million Attendance

When Expo '74 closed its doors in Spokane, Washington, the first week in November, after a six-month run, 5.6 million visits had been made by an estimated three million people. Visitors came from every county in Washington, every other State in the Union and at least 20 foreign countries, and exceeded original projections, and the break-even point, by nearly one million.

Early projections on attendance had been based on expected visitors from the Northwest Region, including the nearby Canadian Provinces of Alberta and British Columbia and the state of California. However, noteworthy attendance materialized in the latter half of the exposition period from other parts of the country, attributed by Expo officials to the favorable press coverage Expo received.

Foreign visitors totaled more than 55,000, including some 600 foreign dignitaries who were received in Expo's official lounge by the U.S. Commissioner General and the President of the Expo '74 Corporation. The flow included large numbers of visitors from Japan and Australia, as well as representatives of various countries of Europe, Africa, the Middle East, Latin America and Asia, including the Philippines, the Republic of China and Vietnam. Many of them were channeled into Spokane by the International Visitor Program of the U.S. Department of State in cooperation with the Spokane International Exchange Council.

Expo '74 was the first international exposition on the environment, and included participation by nine national governments, as well as the United States. These were: Australia, Canada, The Republic of China, The Federal Republic of Germany, Iran, Japan, the Republic of Korea, The Philippines and the USSR. Four states, Idaho, Montana, Oregon and Washington, had pavilions, as did 43 private industrial and other exhibitors.

Three major international environmental symposia were held in the course of the exposition, under the sponsorship of the National Science Foundation and the Environmental Protection Agency. Representatives of the participating countries presented viewpoint statement on the themes of environment, energy, economic growth and human potential. The symposia centered on the differences of opinion affecting policy-making nationally and internationally; environmental case studies to determine why some programs succeed and others fail; and new ways in which present conflicts can be resolved.

In addition to the events sponsored by Expo '74, the Environmental Symposia Center provided exhibit facilities for 13 environmental organizations free of charge.

Appropriate to its environmental theme, Expo '74 will leave Spokane with a downtown park after pavilions are removed from its two-island site in the Spokane River.

Calendar For Businessmen

Dec. 14—Gaithersburg, Md.—Instrumental Methods for Air and Water Measurements and Monitoring programs, National Bureau of Standards. For information, Ronald B. Johnson, Materials Bldg., B-348, NBS, Washington, D.C. 20234. (301-921-2835.)

Dec. 28-30—San Francisco — American Economics Assn. annual meeting, San Francisco Hilton. For information, AEA, Nashville, Tenn. (615-322-2595.)

Jan. 5-8—Cambridge, Mass.—16th Annual "Live-In" Seminar, Harvard Business School. Sponsor: Smaller Business Assn. of New England, Inc. For information, SBANE, 69 Hickory Drive., Waltham, Mass. 02154. (617-890-9070.)

Jan. 12-17—Tucson—Basic Industrial Development Course, Univ. of Arizona. For information, Kent Alexander, College of Business and Public Administration, Univ. of Arizona, Tucson. (602-884-1252.)

Jan. 14-16—Austin, Tex.—Water Management by the Electric Power Industry, Eighth Water Resources Symposia Series, Univ. of Texas. For information, College of Engineering, Univ. of Texas, Austin. (512-471-3506.)

Jan. 14-18—Atlanta — 4th Southeastern Tool & Manufacturing Exposition and Engineering Conference, Atlanta Convention Hall. Sponsor: Society of Manufacturing Engineers. For information, SME, 20501 Ford Road, Dearborn, Mich. 48128. (313-271-1500.)

Jan. 21-22—Morgan City, La.—Fifth Annual International Diving Symposium. Sponsors: Marine Technology Society, Assn. of Diving Contractors. For information, L. Wilson Trahin, Chamber of Commerce, P.O. Box 709, Morgan City, La. 70380. (504-384-3830.)

Jan. 22-24—New York—Fundamentals of Manufacturing Management for Newly Appointed Manufacturing Line Supervisors, American Management Assn. Headquarters. Sponsor: AMA. For information, Ron Hermone, AMA, 135 West 50th St., New York, N.Y. 10020. (212-586-8100.)

Jan. 27-29—Buffalo — Fundamentals of Manufacturing Management for Newly Appointed Manufacturing Line Supervisors, Statler Hilton Hotel. Sponsor: American Management Assn. For information, Ron Hermone, AMA, 135 West 50th St., New York, N.Y. 10020. (212-586-8100.)

U.S. Position In World Market For Exports Of Manufactures Levels After Moderate Decline

The U.S. share of world exports of manufactured goods, excluding shipments to this country, leveled off in the second quarter of this year at 22.1 percent, using data expressed in U.S. dollars reflecting constant (first quarter 1971) exchange rates. This stability, which followed a moderate decline in the first quarter, stemmed from a speed-up in the U.S. export growth rate to 11.5 percent combined with a slowdown in the other 14 leading suppliers' export pace.

Exports of U.S. manufactures climbed to $15.9 billion in April-June, another quarterly record. The greater part of the increase from the January-March value represented a rise in the quantity of goods shipped abroad. Price increases as measured by the unit value index, while sizable, accounted for a relatively small part of the gain in export value.

Comparison problems

When trade is expressed in U.S. dollars reflecting exchange rates prevailing during each quarter, the value of world exports of manufactures is higher, and the U.S. share therefore lower, than when constant exchange rates are used, since most major currencies have appreciated against the dollar since April 1971. In late 1973, however, foreign currencies, on the average, began to depreciate against the dollar. The weakening continued until the second quarter of this year when these currencies again turned stronger. Valuing foreign suppliers' trade at prevailing exchange rates, their exports rose by 16 percent in April-June 1974, and the U.S. standing deteriorated by about half a percentage point to 18.6 percent.

As discussed in the previous report in this series appearing in *Commerce Today* of Sept. 16, neither method of measurement provides an entirely satisfactory view of the U.S. export performance relative to that of other countries. In order to provide continuity with preceding articles until a more accurate method of measurement can be developed, the analysis that follows is based on other countries' exports converted from national currencies to U.S. dollars at constant rates of exchange.

The steadying of the U.S. share in the period under review stemmed from offsetting movements among commodity groups. Large losses in transport equipment and chemicals were balanced by a substantial gain in nonelectric machinery and some increases in the other two commodity groups—"other" manufactures and electric machinery.

The United States recorded its most substantial share improvement of the quarter in nonelectric machinery. Shipments from this country climbed by around 11 percent while those of other suppliers barely rose from their level of the previous period. The sharp U.S. advance boosted its share to 29.9 percent, the highest mark since mid-1968. Contributing most to the strong U.S. performance were expanded exports of computers and parts, materials handling equipment, agricultural machinery, and metalworking machinery. Sluggishness in deliveries, however, was evident in some lines. Among these the most important were power generating machinery and nonagricultural tractors.

In the market for "other" manufactures, a diverse group encompassing mainly semi-finished goods and consumer nondurables, the U.S. position improved moderately as sales climbed by more than 15 percent. Deliveries of iron and steel were especially buoyant as the supply situation abroad continued tight. Plates and sheets together with tubes, pipes, and fittings accounted for half the rise in iron and steel exports. At the same time, shipments of paper and paperboard and textile yarns and fabrics also grew rapidly and helped boost the U.S. standing in "other" manufactures by nearly half a point to 15.1 percent, its best level since late 1969.

Only a slight improvement in the U.S. position was recorded in electric machinery as sales increased more slowly than in the other major groups of manufactures. Tubes, transistors, and semiconductors and also their parts contributed importantly to the modest rise in exports. Shipments of components were buoyant to Japan and Germany, while those of parts rose to Mexico, Korea, and Singapore.

The U.S. standing in the chemicals market weakened by nearly a full point to 20.5 percent, the lowest level in over a year. Although deliveries of organics expanded substantially, particularly to the Netherlands, Canada, and Mexico, exports of other chemicals, such as inorganics, medicinals and pharmaceuticals, and fertilizers

Polluter To Pay

The polluter-pays principle by which industrial firms must add environmental cleanup costs to the prices of their goods or services has been supported—with some exceptions—by a high level Environment Committee of the Organization for Economic Cooperation and Development (OECD).

The committee, which met at the ministerial level in Paris Nov. 13-14, thus reiterated the determination of the OECD membership—24 of the world's major industriailzed nations—to avoid governmental subsidies to help industry meet anti-pollution standards.

The committee backed exceptions to the polluter-pays principle in extraordinary circumstances where the government aid given 1) would not create significant international trade and investment distortions; 2) would be for well-defined transitional periods only; 3) would be restricted only to the industries, areas or plants where the extraordinary difficulties occur.

Government aid in anti-pollution research was approved, as were national measures that only incidentally assist specific firms in cutting their pollution control costs.

The OECD committee also established notification requirements and consultation procedures that would keep all OECD members informed on anti-pollution assistance programs of interest to them.

U.S. Share Of World Exports Of Manufactures

Adjusted for Seasonal Variation

Commodity	U.S. exports (million dollars)	U.S. share of world exports to foreign markets[1] (% based on current rates of exchange[2])	U.S. share of world exports to foreign markets[1] (% based on constant rates of exchange[2])
Manufactures, total			
1972 1st quarter	8,250	18.8	20.5
2nd	8,159	18.0	19.7
3rd	8,685	19.2	20.9
4th	9,203	18.6	20.2
1973 1st	10,010	18.6	21.0
2nd	10,898	18.2	21.6
3rd	11,732	17.5	21.9
4th	13,035	18.7	22.5
1974 1st	14,230	19.2	22.0
2nd	15,863	18.6	22.1
Chemicals			
1972 1st quarter	1,047	19.0	20.7
2nd	952	17.0	18.6
3rd	1,014	18.2	19.8
4th	1,157	18.7	20.3
1973 1st	1,230	18.0	20.4
2nd	1,343	17.8	21.3
3rd	1,501	17.1	21.7
4th	1,717	19.3	23.3
1974 1st	2,014	18.5	21.4
2nd	2,208	17.0	20.5
Nonelectric machinery			
1972 1st quarter	2,334	24.9	26.9
2nd	2,305	24.2	26.2
3rd	2,435	25.6	27.6
4th	2,567	24.6	26.4
1973 1st	2,718	24.7	27.5
2nd	2,916	24.0	28.0
3rd	3,221	23.7	29.1
4th	3,412	24.2	28.7
1974 1st	3,611	24.7	28.1
2nd	3,990	25.5	29.9
Electric machinery			
1972 1st quarter	900	20.9	22.8
2nd	881	20.0	21.8
3rd	946	20.9	22.8
4th	1,013	20.8	22.6
1973 1st	1,139	21.4	24.1
2nd	1,220	20.7	24.5
3rd	1,324	19.8	24.7
4th	1,413	20.4	24.6
1974 1st	1,618	22.1	25.3
2nd	1,743	21.4	25.5
Transport equipment			
1972 1st quarter	1,985	26.3	28.5
2nd	1,995	25.0	27.2
3rd	2,154	27.0	29.2
4th	2,217	25.0	26.9
1973 1st	2,472	26.5	29.6
2nd	2,614	25.0	29.4
3rd	2,640	23.2	28.6
4th	3,084	25.9	30.6
1974 1st	3,146	28.7	32.3
2nd	3,499	26.2	30.3
Other manufactures			
1972 1st quarter	1,984	11.6	12.7
2nd	2,026	11.4	12.6
3rd	2,136	12.2	13.3
4th	2,249	11.8	12.9
1973 1st	2,451	11.5	13.1
2nd	2,805	11.7	14.0
3rd	3,046	11.4	14.5
4th	3,409	12.3	14.9
1974 1st	3,841	12.7	14.7
2nd	4,423	12.6	15.1

Note: First quarter 1972 U.S. exports and U.S. percentage shares were inflated because of strike-delayed shipments. The term "manufactures" refers to chemicals, machinery, transport equipment, and other manufactures except mineral fuel products, processed food, fats, oils, firearms of war, and ammunition. Data have been revised from previous issues.

[1] World exports are defined as exports from the 15 major industrial countries. Percentage shares are based on values excluding shipments to the United States. These nations, which account for 80 percent of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and Japan.

[2] In the two series of U.S. percentage shares presented, the first column shows shares based on current rates, the official rates of exchange for merchandise shipped during each period, and the second column shows shares based on data measured at constant rates of the first quarter 1971, prior to widespread currency changes.

showed little change from the values of the previous quarter.

In transport equipment, this country reported its biggest share loss as sales by the other leading suppliers climbed twice as rapidly as those from the United States. The primary reason for the relatively slow growth in total U.S. transport equipment sales was the sluggishness in exports of automotive goods to Canada. Sales of such products to other countries, however, continued to climb notably. At the same time, deliveries of U.S. aircraft advanced strongly, especially to Brazil, Canada, and Iran. While the U.S. position declined to 30.3 percent, this share was still the highest in several years with the exception of the two preceding quarters.

Foreign Market Data Is Speeded For U.S. Traders

The Commerce Department is speeding up its Foreign Market Reports Service containing spot news accounts or timely surveys on industrial, commodity, commercial or economic conditions in more than 100 countries.

Beginning on Jan. 1 the Department will inaugurate an automated distribution system that selects and sends to subscribers the specific reports that are of direct interest to them, as soon as these reports are published. The Service will, at the same time, retain a monthly published Index that lists the entire range of new reports.

About 200 reports, sent to Washington by U.S. Foreign Service officers, are received each month. Some examples:

- A "foreign market survey," focusing on computers and related equipment in Brazil and prepared there for the Commerce Department, is an in-depth study providing information on the size of the Brazilian market for computers, forecasts for both domestic sales and imports, and a picture of the U.S. share of the market.
- An "industrial outlook report" on Norwegian fishing by the Embassy in Oslo and sent to Commerce by airgram, reports on

recent trends in the country's fishing industry; new catch regulations, both national and international; the country's continuing price support program; growth of fish farms; and the latest industry outlook.

- A "market research summary" offers U.S. businessmen considering participation in an exhibition of analytical instruments for science and industry at the U.S. Trade Center, Tokyo, next May, concise market data and product and end-user analysis.
- A "participant list" names the exhibitors who took part in a recent automotive parts exhibition at the U.S. Trade Center in Tokyo. The title of each firm, its exhibit items, and whether it is "new or old to market" is indicated.

Popular among the latest reports were an airgram from Jakarta on the petroleum industry's development and outlook in Indonesia, a market survey for metalworking and metal finishing equipment in Spain, and an airgrammed directory of business services that are available in Brazil.

Ways to use service

Subscribers have several options in using the service. A company interested in industrial process control equipment, which carries the Standard Industrial Classification code number SIC-3823, marks its application with that code number, and receives all reports concerning such equipment. Another company interested generally in conditions in Japan marks that name on its application and gets all reports about Japan. A company that wants to choose from the entire supply of available reports examines the monthly Index as it is received and requests the reports of interest to it.

The change in the Foreign Market Reports Service does not affect other widely-used foreign marketing publications offered by the Commerce Department—the Foreign Economic Trends series, the Overseas Business Reports series, Global Market Surveys, and Trade Lists. Individual reports in these series are, however, included in the FMR Index and may be purchased individually by FMR subscribers.

Commerce's National Technical Information Service, under an arrangement with the Bureau of International Commerce, will handle the new "customized" service. On Jan. 1, an annual subscription for 12 issues of the FMR Index will be $10. Subscribers to the Service will receive the index and will pay $10 for each survey, $2 for an airgram; a minimum initial deposit of $25 is required.

During recent years, as many as 40,000 requests for reports have been filled by the FMR Service. For additional information, or to subscribe, write NTIS, Box 1553, Springfield, Va. 22151, any Commerce District Office, or BIC's Export Information Division, Room 1063, U.S. Department of Commerce, Washington, D.C. 20230, phone 202-967-2504.

LEARNING ABOUT U.S. EQUIPMENT—*At Tokyo Trade Center exhibition, Japanese customers listen as C. L. Babin (left), Dunham-Bush International, explains his firm's products. In photo at right, business visitors examine displays of other U.S. companies.*

Japan Modernizing Builds U.S. Sales Of Cooling Units

U.S. producers have an opportunity to respond to the growing demand in Japan for refrigeration equipment to modernize and expand storage, processing plants, transportation modes and retail outlets.

This was confirmed as 25 American manufacturers, seven of them new to the Japanese market, displayed the latest U.S. equipment for cold storage warehouses, supermarket storage, and refrigerated transportation—as well as retail display showcases, ice makers, and chilling units—during a recent exhibition at the Tokyo U.S. Trade Center.

Greatest visitor interest was primarily in compressors, liquid coolers, heat exchangers, electric defrosters, ice makers and freezers for institutional use, and refrigeration units for trucks. A number of visitors from manufacturers of refrigeration equipment were eagerly looking for appropriate components to import or produce under licensing agreements.

Japan's refrigeration equipment industry has estimated its production at about $2.6 billion in 1974, an increase of some 30 percent over the preceding year. Imports of equipment for commercial refrigeration are expected to approach $80 million, of which about half will be supplied by U.S. manufacturers.

Refrigerated warehouses in Japan in 1973 reached 3,604 plants with a capacity of 11.4 million cubic meters, an increase of 15 percent in capacity over the previous year. Refrigerated transport in use totaled more than 13,000 units with use of such vehicles growing an average of some 120 percent between 1971 and 1973. Japan's consumption of frozen foods has grown at an annual rate of about 30 percent in the past three years, reaching 317,772 metric tons in 1973. Per capita consumption of frozen foods, however, is only 1.4 kilograms, compared with 34 kilograms in the United States, indicating much potential for further growth of this industry in Japan.

As reported in the Fair Briefs column of *Commerce Today*, Nov. 25, page 23, the U.S. exhibitors project sales of $10 million in the next 12 months.

U.S. Exhibition Results In Brief

The following summary reports have been received on U.S. overseas commercial exhibitions. Further details and marketing data will be published as available.

POLYTECH '74. U.S. Pavilion, International Fair of Santiago, Oct. 31-Nov. 17. Floor sales, $5.2 million; 12-month projection, $18.7 million. Agents and distributors signed, 4; agreements under negotiation, 2.

Building Materials and Related Equipment Exhibition. U.S. Trade Center, Paris, Nov. 5-8. Exhibitors, 23, representing 32 companies. Floor sales, $1.1 million; 12-month projection, $12.1 million, of which firms new-to-market account for $10.3 million.

Analytical Instruments and Systems Exhibition. U.S. Trade Center, London, Nov. 11-15. Exhibitors, 52. Floor sales, $468,840; 12-month projection, $7.9 million, of which firms new-to-export or -market estimate $952,000. Representation agreements, 2; under negotiation, 5.

Industrial Process Control and Instrumentation Exhibition. U.S. Trade Center, Milan, Nov. 13-19. Exhibitors, 23, representing 44 U.S. firms. Floor sales, $206,800; 12-month projection, $3.8 million, of which $1.5 million is estimated by new-to-market firms. Representatives appointed, 5, license agreement, 1; in negotiation, 15, plus 1 license.

Educational and Industrial Training Aids Exhibition. U.S. Trade Center, Tehran, Nov. 17-21. Exhibitors, 24, representing 38 U.S. firms. Floor sales, $241,000; 12-month projection, $10.6 million, with firms new-to-export or -market accounting for $7.5 million. Representatives appointed, 4; agreements under negotiation, 3.

Worldwide Business Outlook

Germany Worried About Recessionary Trend Abroad

Compared with many other countries, Germany's economic situation is enviable. As a result of wise fiscal policies and monetary restraint the German inflation rate—7 percent—is considerably lower than that of any other industrial economy. Also there is a huge trade surplus and the GNP growth rate is still on the positive side.

Nevertheless, the U.S. Embassy in Bonn cites several indicators that support the feeling that all is not well—especially in the context of Germany's own economic experience. Unemployment is up and is sure to hit higher levels in the winter months. In this respect conditions have approached those of the 1967 mini-recession. Profits are squeezed and new investment is dropping in real terms.

Weak domestic demand, largely compensated for by expanding export activity, has so far characterized the level of economic activity. This may change as foreign demand drops off and the domestic side picks up in response to more expansionary policies. Imports from the United States have grown at a slightly better rate than total non-oil imports; however, the overall rate of import growth next year is likely to decline.

In terms of aggregate growth, domestic economic forecasters in Germany feel that the bottom has about been reached, but that recovery will be slow, with only a very gradual pickup to a 1.5 percent annual real rate of growth in GNP in the first half of 1975 and a more significant if less certain improvement to a 3 percent annual rate in the second half of next year. For the year this would mean 2.5 percent real growth. Investment in real terms will still decline in response to a lagging profit picture, but this situation is expected to change to the positive side in the second part of 1975.

Inflation is not expected to worsen next year, and may even drop a bit to a 6.5 percent annual rate according to the five leading German economic research institutes. This could have the subsidiary effect of bringing upward pressure on the deutschemark due to the much higher inflation rates prevailing among Germany's neighbors and trading partners, unless capital movements should be in an offsetting direction.

Similarly, the relatively restrictive economic policies which have contributed to Germany's greater price stability have not harmonized exactly with most other EEC members. As a result they could bring pressure to bear on the Germans to reflate. This non-harmonization of national economic policies, of course, is a counterforce to the strengthening of the Community.

The Bundesbank has begun to adjust its policies to "changed circumstances." Whereas earlier cuts in minimum reserve ratios were essentially designed to offset the liquidity drain resulting from outflows of foreign exchange, the late October decision to reduce the discount and the Lombard rate by 0.5 percentage points and to increase rediscount quotas is thought by some observers to represent a first cautious step toward loosening the monetary reins.

Comparison of the January-August period of this year with last shows that imports from the United States rose 15 percent. This represents an improvement by 2 percentage points over the 13 percent growth registered in 1973 over 1972. However, overall German imports have risen 24 percent in the comparable eight-month period this year, a significant 11 percentage-point jump over the 13 percent increase recorded for 1973. While it might be concluded that U.S. goods are not competing nearly as well with imports from other countries this year as last, the figures are distorted by the massive price increases for petroleum imports. If crude oil imports were subtracted from the statistical picture, the rate of increase of imports from the United States would be marginally higher than from the rest of the world.

German trade experts predict a less dynamic demand for imports in 1975. In fact, they imply that the overall import growth rate may be halved. Imports from the United States could reasonably be expected to at best roughly follow the same pattern. This would mean a 7-8 percent increase in 1975 over projected imports from the U.S. of about $5.5 billion in 1974.

What should sell

A recent assessment by U.S. Foreign Service Posts in Germany of the products which have highest potential for incremental U.S. sales in Germany confirmed the U.S. lead in high technology items. These include business equipment and systems, computers, electronic components, electronics industry production and test equipment, fluid power and transmission equipment, health industries equipment and instrumentation. Process control instrumentation, pollution control instrumentation and equipment, laboratory instruments, and graphic arts equipment were listed as target industries with the highest sales potential.

Detailed market research studies conducted recently for the U.S. Department of Commerce (which are available to U.S. businessmen through the Department's District Offices) reveal these opportunities for U.S. products:

- The German market for temperature measurement and control instrumentation is estimated at about $110-130 million. U.S. products with promising sales potential cited include thermocouples, thermistors, heat flux transducers and quartz sensors.
- Components for machinery and vehicle design engineering from the United States are highly regarded and considered advanced. Germany's lack of mass production of advanced aerospace hardware and smaller R & D efforts in other specialized fields have led to less development.
- During 1973 newly installed food proc-

NEW HAMBURG LANDMARK: THE KOEHLBRAND BRIDGE—*The Port of Hamburg skyline got a new addition in September with dedication of this 463-foot high structure.*

essing and packing equipment in Germany amounted to a total of $400 million. The "Americanization" of German eating habits and food distribution are among the biggest boosters for sales of this U.S. equipment in Germany.

▸ The market for safety, plant maintenance and security eqiupment in Germany amounts to $550 million. Demand for safety equipment is practically assured by stringent labor safety requirements. The trend to social legislation as well as the ever stricter enforcement of existing safety laws portend continued expansion of this market in excess of general industrial growth rates.

Issue of codetermination

The proposed legislation referred to as *Mitbestimmung* or codetermination entered into the hearings stage in the Bundestag in mid-October. Meanwhile, on the sidelines, some of the potentially affected parties have made their positions clear in what has become a public controversy.

Codetermination has been an issue under consideration and public debate for years. It began in 1951 when "parity" codetermination, the *Montan Modell,* was applied in the coal and steel industry. The German Government-sponsored codetermination bill would provide for worker participation in corporate management of firms with more than 2,000 employees, which affects some 650 firms in Germany, including the multinationals. This would be accomplished by the mandatory placing on the company supervisory board *(Aufsichtsrat)* an equal number of representatives of stockholders and labor. Included in the labor representation would be a management level employee. The supervisory board would then in turn appoint the members of the executive board *(Vorstand).*

The final form and the chance of and timetable for passage of the codetermination legislation are very difficult to predict. Not only is business opposed, but so also is labor, which feels the bill does not go far enough.

The failure last June of the Herstatt Bank, one of the larger German private banking houses, due to losses principally incurred in forward exchange operations, has temporarily had the effect of worrying some about the integrity of the banking system, especially when it was followed by a couple of smaller bank failures. However, the government has taken action to tighten controls on foreign exchange trading and is otherwise moving to supervise more closely banking operations.

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Sweden's Buffers Against Slump Keep Economic Forecasts Optimistic

Far better off than most countries, Sweden expects to achieve a 3.1 percent increase in real gross domestic product in 1974, the result in part of selective measures taken to raise household consumption and offset the impact of higher oil prices. The official government forecast anticipates a generally expansive economy for 1975 as well, assuming that a number of basic assumptions hold true.

The U.S. Embassy in Stockholm concludes that Sweden should remain a prosperous market for American exporters through 1975, but notes that U.S. export activity there has been declining in recent years. Later in its report to the Department of Commerce the Embassy suggests particular product categories which offer exceptional export opportunities for American firms.

Production was up 6 percent by volume in the first half of 1974 over the same period in 1973, and in some sectors was near capacity. Job openings exceeded job seekers. Utilization of resources seemed to be peaking by the fall of 1974, signaling the end of a business cycle.

Troubled by the possibility of an overheating economy and an inflation rate of 10.5 percent in 1974, and faced with a sharp loss of foreign exchange reserves between March and July, the Riksbank restricted credit and narrowed the differential between Swedish and foreign interest rates, a factor that had contributed to the outflow.

A rapid deterioration of the trade picture also posed a threat to the exchange position. Higher prices for oil and other imported goods swiftly erased the record 1973 Swedish trade surplus in the first six months of 1974 when the trade account weakened by over Skr 6.5 billion ($1.4 billion). Trade and payments accounts now seem certain to be in deficit by year end, perhaps by as much as Skr 1.2 billion and Skr 3.0-3.5 billion, respectively.

Sweden had better luck than some other countries in having substantial foreign exchange reserves and by being in an expansive phase of its business cycle when the oil problem intensified late in 1973.

The Swedish Government is optimistic about development of the economy in 1975. In November, the National Economic Research Institute published a preliminary forecast for 1975. The Institute expects that the economy will be generally expansive in 1975, chiefly in the first half. Gross domestic product is expected to amount to about 2.0 percent next year (measured from the demand side; 2.5 percent measured from the production side). Gross investment is expected to be down 2.0 percent compared to 1974; private investment, excluding housing, up 3.0 percent; central and local government investment down 4.0 and 4.5 percent, respectively; and housing down 7.5 percent. The growth of private consumption is predicted to slow to 3.5 percent and public consumption to 2.5 percent. Exports are expected to increase 3.5 percent in volume and imports 4.5 percent. A big factor in the economy will be a decline in inventory buildup, a development which will lessen domestic demand, including demand for imports.

The Institute also forecasts that utilization of capacity will decline somewhat. Demand for labor will be slightly weaker, with unemployment increasing by about 0.5 percent. Prices will rise more slowly in 1975 than in 1974; consumer prices will rise 7.0 to 8.0 percent, compared with the expected rate of 10.5 percent in 1974.

The current account will continue to be in substantial deficit, but the deficit will not be large compared to those expected in other Western European countries.

The trade deficit will amount to the equivalent of $270 million in 1975, unchanged from the 1974 level, but a continued weakening in the services and transfers accounts will raise the current account deficit in 1975 to $1 billion from $825 million in 1974.

Several assumptions are required

The Institute's forecast demands several assumptions: an upswing in the international economic situation by the second half of 1975 and, consequently, for the year as a whole, moderate growth in the world economy and therefore continued strong demand for Swedish exports; a dampening in the rate of international price increases in 1975 due to a flattening of raw material prices; an easing of the international credit market situation; a willingness on the part of Swedish business to borrow abroad at significantly higher rates of interest than prevail in Sweden, either voluntarily or in response to incentives. If any one of these assumptions fails to hold true, the Institute does not hesitate to admit, Swedish economic performance would fall short of the level predicted.

There may be opportunity in 1975 to reverse the steady decline over recent years in the U.S. share of the Swedish market. This share has fallen from 8.7 percent in terms of volume in 1970 to 6.5 percent in the first six months of 1974. The value of Swedish imports from the United States in current kronor was 42 percent higher in the first half of 1974 than in the same period of 1973, an indication not so much of the growth of trade as of the worsening of inflation. Swedish imports from the United States have also been declining as

measured in constant 1968 kronor. In 1970, for example, the value of Swedish imports from the United States in constant kronor was Skr 2.9 billion, compared with Skr 2.0 billion in 1973—a decline of 31 percent.

Swedish exports to the United States actually fell in value 2.7 percent in the period January-June 1974, compared to the same time a year earlier, and declined to 5.1 percent of total Swedish exports, from 6.9 percent in full-year 1973.

One may think of many reasons to explain the weakening trade performance. Certainly long-time overvaluation of the dollar—a situation now improved—and the growing concentration of Sweden's trade among its European trading partners are among the causes; inadequate efforts by American companies to sell in Sweden may have contributed, too.

Twelve best opportunities

Sweden will provide good market opportunities for American companies in 1975.

Market research done for the United States Trade Center for Scandinavia has shown that the 12 best opportunities for sale of American goods to Sweden are in the following product categories, listed below in order of descending potential for incremental export sales:

- **Printing and Graphic Arts Equipment**—Photo-setting equipment such as CRT and perforators; integrated binders, process control instruments, especially for print-destiny and web control; display terminals; mini-computers, systems and software.
- **Laboratory Instrumentation** — Carbon and sulfur analyzers; differential thermal analyzers; gas chromatographs; digital oscilloscopes.
- **Electronic Data Processing Equipment**—Office and industrial mini-computers; small computers; alphanumeric display terminals; OCR terminals; key-to-disc/tape terminals; disc drives; concentrators, multiplexers, and batch terminals for data transmission. The Swedish Government has established large computer centers to which government users have access through remote terminals. There is strong demand among government users for the greater flexibility offered by mini-computers and small computers. It is possible that the government will respond by procuring more of these within the next few years.
- **Avionics and Aviation Support Equipment**—Airborne avionics: retrofit fitted automatically; UHF and VHF communications systems; transponders. Ground avionics: ATC, complete systems; area navigation; EDP flight plan processing and presentation for ACCs; DME; radar, all types except PAR; ILS under $40,000 for small airfields, or complete ground avionics hardware under $100,000. Aircraft ground support equipment: checkout and repair equipment (hydraulic, pneumatic, electrical). Runway and ramp equipment: thermal melters. Air terminal security systems. Air terminal communications systems. Passenger transfer systems. Main end users of avionics and aviation support equipment in Sweden are the Civil Aviation Board and the Scandinavian Airline Systems.
- **Electro-Optical Equipment**—Interferometric lasers; spectrophotometers; optical information-processing equipment, especially character-recognition devices; infrared equipment; construction and survey lasers; semiconductor manufacturing equipment; scanning electron microscopes.
- **Metallurgy and Metals Engineering Equipment**—Transfer systems; industrial robots, process-control instrumentation; vapor-deposition equipment; line and motor-frequency generators, di-electric heating equipment; physical test instrumentation; impregnating equipment; continuous and centrifugal casting equipment.
- **Packaging Equipment (Non-food)**—Most salable products: small polyethylene shrink-film wrappers; large made-to-order shrink-film wrappers; check-weighers; fill-form-seal and other thermo-forming equipment.
- **Electronics Industry Production and Test Equipment**—Semi-conductor manufacturing equipment; test instrumentation.
- **Energy Systems: Natural Gas and Petroleum** — Process control instrumentation for refineries; natural gas storage and distribution equipment (assuming that Sweden succeeds in obtaining natural gas from the Soviet Union or Norway.) U.S. suppliers of equipment and technology in the extraction and transmission of natural gas can expect to find an expanding market in Sweden, which is likely to increase its use of this energy source in the next few years. The international oil problem has made Sweden conscious that its petroleum refining capacity is inadequate to meet its own needs.
- **Reprographics/Micrographics** — Offset equipment; automatic plate-making processors for offset and gravure.
- **Communications Equipment**—Microwave links; data transmission systems.
- **Shipbuilding, Marine and Port Equipment**—Equipment for shipyards; quick-erect scaffolding; equipment for oil drilling platforms. Shipboard equipment: oil control and disposal systems; solid and liquid waste disposal equipment; safety and survival equipment, including alternatives to lifeboats; computerized navigation and integrated bridge-control systems, especially anti-collision (digital plotters), radar, and position-fixing (satellite and Omega) equipment; shipboard and ship-to-shore communications equipment; engine room control systems: components for refrigeration accessories. Port equipment: automated container handling systems; coal handling equipment; oil spill control systems.

Certain categories of consumer goods, in addition, offer substantial opportunities for incremental sales.

Icelanders, Caught In Price Squeeze, Face Hard Times

Icelanders will be facing an increasingly difficult situation in the coming year following a period of plenty. U.S. inputs through proposed investments and defense improvements will be of help in these hard times and at the same time may provide limited opportunities for American business in the next few years.

A year ago the Icelandic economy was characterized by extraordinary fish prices, a high rate of inflation and a moderate rate of growth. Since then the price of fish has dropped substantially, the rate of inflation has almost doubled (from 25 to 45 percent), and the real growth rate is expected to decrease by about 1 percent to some 4.3 percent. The U.S. Embassy in Reykjavik, in a report to the Department of Commerce, shows how the situation has changed so much in a year's time.

The volcanic eruption in 1973 which threatened the important fishing center in the Westman Islands, and increased prices for oil and other imports promised Icelanders a difficult future. But almost simultaneously fish prices, upon which the economic prosperity of the country depends, zoomed to new highs, resulting in income increases which exceeded the rate of inflation and shifting the terms of trade to Iceland's favor. In early 1974, unions seeking a greater share of the new wealth for their members submitted demands which ultimately increased the wage bill by 45 percent. Shortly thereafter fish prices declined dramatically, and inventories grew at home and abroad (including Iceland's two freezer plants in the United States). Automatic escalators kept wages apace of price rises and by April it became clear to the government that strong measures were needed to straighten out the wage-price spiral.

It was on this issue that the government dissolved Parliament in May and called for new elections June 30. Some of the measures proposed by that government, however, including a wage-price freeze, were put into effect on a temporary basis by the caretaker government. The June elections left the three former coalition parties in a 30-30 Parliamentary stalemate with the two former opposition parties and a new government was formed in August by the Independence and Progressive parties.

At the end of August the Central Bank announced a 17 percent devaluation of the krona (US$1=118), which was in addition to a 20 percent depreciation over the first six months of this year. This step was considered necessary, as international reserves were down to an equivalent of two weeks of imports.

On Aug. 29, the new government issued a policy statement in which it committed itself to take immediate steps to: prevent industrial stoppages, ensure full employment, improve the foreign exchange position, consolidate the position of investment credit funds and the Treasury, combat the rapid inflation, and secure to the extent possible the general standard of living.

One of the first steps of the new administration was to disconnect the link between wages and prices and to limit wage increases to low-income workers through next May 31. In addition, it authorized increases in indirect taxes and in public utility rates. It is currently concentrating on what to do about the ailing fishing industry, which is about 2,500 million kronur in the red. But its chief concern is what to do about inflation and how to dampen domestic demand (which grew at a rate of 11 percent last year while output grew only 6 percent).

Although Icelanders hope for another reprieve such as occurred last year when, because of high fish prices, income growth surpassed cost of living increases, there is nothing on the horizon to indicate this will happen before at least well into 1975.

The outlook for 1975 at best may be described as uncertain. Efforts to reduce the inflation in 1975 will depend on a number of "ifs" or assumptions.

For example, although wages have been frozen for months, prices have continued to rise. Many of these have been due to tax increases, but some are related to the devaluation and others to the price control system which depends on mark-up, rather than base price. Such a system is naturally less controllable. Meanwhile, labor has been patient, and it is a question whether it will continue to practice restraint in the face of rising prices. The new government has stated that such pay increases are not in the national interest.

The likelihood of a slowdown in the economy next year would be a negative factor in terms of trade expansion were it not for the fact that the openness of the Icelandic economy has generally prevented the government from slowing the growth of imports (almost 50 percent for each of the past two years.)

Government procurement is expected to be somewhat less than normal because of planned cutbacks in the budget. The recently announced U.S.-Icelandic agreement to provide for housing on the Keflavik base, and the upgrading of airport facilities, both over a period of several years, may offer limited opportunities for supplying of construction materials and equipment.

A final determination by the Icelandic Government is expected shortly on the much-delayed Union Carbide proposal to build a ferrosilicone plant in Iceland. The outcome of this decision and the government's proposal to double capacity of the existing aluminum smelter will be viewed as an indicator of the investment climate.

Surinam Preoccupied With Transition To Full Independence, Mixed Economy

Surinam is in a transitional period, moving from Dutch associated statehood to full independence and from a free enterprise economy, dependent on big foreign mining companies, to a mixed economy in which joint ventures between government and private investors is likely to be the norm. The country is scheduled to become independent by the end of 1975. The transition is raising serious questions about future economic progress, and causing investors to reassess Surinam's immediate investment potential. Over the longer term, however, Surinam's bauxite and other mineral and agricultural wealth should provide the basis for stronger economic growth and make this country an increasingly desirable economic partner for the United States.

The American Consulate General in Paramaribo, in a report on economic trends in Surinam and their implications for U.S. business, goes on to note that the bauxite industry has traditionally set the pace of Surinam's economy. Exports of bauxite, alumina and aluminum have been on a high plateau for several years, sufficient to keep the economy ticking and to shield it from serious maladjustments in other sectors. But the stagnation of bauxite exports means that Surinam, which imports much of the goods and services it consumes, has experienced a steady erosion in its balance of trade and poor economic performance generally.

New investment is essential

New investment, in this case largely foreign investment, is essential for future growth of the industry. In the last 18 months, Suralco (a wholly-owned Alcoa subsidiary) has invested about $20 million in a slurry system and docking facilities at Paranam and a crushing plant at Moengo. Also in the pipeline are electrostatic precipitators to reduce air pollution at Paranam and a $12 million thermal power plant which, when completed, will permit the Paranam aluminum smelter to be used at full capacity for the first time.

Billiton (a joint venture of the Government of Surinam and the Dutch Shell group) and Alcan Aluminum Ltd. of Canada entered into a joint venture agreement with the government on July 13 calling for construction of a 150,000-ton bauxite calcination plant at Smalkalden. Investment in the plant could reach $15 million. The agreement gives the government an option on one-third of the shares of the venture, known as Alcan-Billiton Suriname N.V.

For a variety of reasons, other plans to expand Surinam's bauxite industry have been indefinitely postponed or dropped.

Exports of rice, shrimp, timber, bananas and other tropical products are below the productive potential of the country.

Next to bauxite, foreign aid is the mainstay of the economy. Surinam's balance of payments have been characterized by a persistent deficit on current account—not surprising when 43.2 percent of goods consumed by the average Surinam family are imported—offset by a surplus on capital account deriving from development aid. Main aid donors are the Netherlands, the European Development Fund and the United Nations Special Fund.

Inflation accelerated to an annual rate of over 20 percent in 1973, spearheaded by food prices. It continued its dangerous rise into early 1974, before price rollbacks imposed by the government began to take effect, but the rate shows no sign of dropping below 10 percent and could accelerate again.

Rise of the labor movement

One of the most remarkable phenomena in Surinam over the last five years has been the rise of the organized labor movement. Today, the militant and politically conscious movement is a major economic factor. Strike action traumatized the economy in 1973 and, spurred by continuing inflation, is not far from the surface this year.

Almost daily, new industrial disputes are submitted for conciliation. Made wary by the events of last year, most employers, including the government, appear disposed to enter into generous three-year collective labor agreements.

One of the government's main electoral pledges during the campaign late last year was that it would secure a greater voice in management of the country's natural resources. The government's intentions are not entirely clear even now, but recent joint venture agreements with Alcan/Billiton (for construction of a bauxite calcination plant) and Placer Development Ltd. of Canada (gold mining) will probably be models for future foreign investment in the extractive industries. Broadly speaking, the companies will bring capital and know-how to the ventures, and the government will bring Crown lands, concessionary rights, tax write-offs and other investment inducements.

In the wholesale/retail trades, the government has been highly interventionist. It has awarded a trading monopoly on a long list of food products to Centraal Importbedrijf Suriname (CIS), the state trading company, and announced quota restrictions or outright bans on many imported items considered to be nonessential or in competition with local products.

The government has publicly rejected a policy of expropriation and affirmed its reliance on the private sector, specifically in-

cluding foreign investment, to accomplish its development objectives. In spite of these assurances, however, the overall investment climate in Surinam has deteriorated. Some potential investors are withholding decisions, pending improvement in the labor situation, reduced inflation and further clarification of government economic policy. There have been some signs of a flight of capital.

There is likely to be little real economic growth in Surinam in the year ahead. Potential foreign investors will be wary of putting new money into Surinam and economic managers, both in and out of government, will be preoccupied with the financial and political problems arising out of transition to independence and a mixed economy.

Nevertheless, the level of imports should remain high and American suppliers should continue to find ready markets for earth-moving equipment, tractors, commercial vehicles, fishing boats, pleasure boats, marine engines, mining machinery, food processing equipment, textiles and ready-made clothing, household electrical appliances, builder's and home hardware, toys, pharmaceuticals, industrial chemicals, fertilizers, agricultural commodities and other goods. They can expect to fill about one-third of Surinam's import requirements.

Service, parts can be decisive

Availability of after-sale servicing and spare parts can be the decisive factor in deciding between comparable equipment from, say, the Netherlands, the Federal Republic of Germany, Japan or the United States. It helps to explain the great success of German and Japanese automakers in Surinam, when most American makes have all but disappeared from the streets. Manufacturers in the Federal Republic and Japan make a practice of encouraging their local distributors to stock as complete a range of spare parts as possible and, in some cases, maintain regional spare parts depots within short flying time of Surinam in order to fill orders quickly.

However, the competitive position of third countries is weakening, relative to the United States, because their price quotations are beginning to reflect higher rates of inflation and rising freight rates. In the first half of 1974 alone, freight rates from Japan to Surinam increased by 17 percent. For many manufactured goods, the price advantage is now on the American side. Moreover, there are indications that the new agreement of association between Surinam and the European Economic Community, scheduled to be signed sometime next year, will drop the present requirement for reverse preferences. That would eliminate a dual traffic system which discriminates against American goods.

It will be to the advantage of American food suppliers to familiarize themselves with the officers and operations of CIS. As more and more imported food products come within the purview of CIS, suppliers will have to switch from their traditional trading partners in the private sector or lose the market. A list of items currently reserved for CIS is available at the Department of Commerce. The Director of CIS is H. W. Mohamed Radja, Waterkant 15, Paramaribo, should you wish to send price lists and promotional literature.

Stricter Import Controls Are Imposed By Tanzania

Tanzania has imposed stricter import controls, effective Oct. 1. The new controls are designed to conserve Tanzania's declining foreign exchange reserves, drawn down to purchase needed but more expensive petroleum and grain supplies.

Under Government Notice 242, the number of goods which may be imported under Open General License has been reduced. Importers also report a decrease in the quantity of a specific good for which exchange will be granted. No undue restriction is expected on importation of items essential for Tanzania's development projects.

Three parastatal entities have been granted exclusive importing responsibilities: State Motor Corporation for utility and public service vehicles, as well as all motor vehicles; State Mining Corporation for salt and cement; and Tanzania Film Corporation for processed picture films and phonograph records.

Further information on the commodities effected and on Tanzanian parastatal organizations may be obtained from the Africa Division, Office of International Marketing, BIC 244, U.S. Department of Commerce, Washington, D.C. 20230.

New Bulgarian Decrees Encourage Cooperation With Foreign Firms

Bulgaria has recently published two decrees which signal an increasing emphasis on cooperation with Western firms. Both officially encourage and define the scope of cooperation projects with foreign entities.

"Cooperation" to the Bulgarians does not imply joint ownership with foreign firms of production facilities in Bulgaria. Rather it emphasizes a foreign firm's supplying technology and equipment which will lead to increased Bulgarian exports. In return, Bulgaria normally provides to the supplier of technology a portion of the goods produced under the arrangements.

A number of stipulations made in the decrees seem to represent special inducements for Western firms. Contract disputes, for instance, are to be arbitrated by the body named in the cooperation agreement (which could include a Western tribunal). The previous tendency in Bulgaria has been to insist on arbitration by the Council attached to the Bulgarian Chamber of Commerce.

Another new provision is that foreign companies are allowed to station employees in Bulgaria to assist in production quality control or in selling in international markets items produced under a cooperation agreement. The employees may repatriate up to 50 percent of wages earned in Bulgaria.

The foreign participant may receive part of the production or sales receipts ("achieved economic results") arising from the cooperation arrangements, providing it undertakes the supplying of credits or technology and the marketing of the goods on international markets.

Although a foreign firm is precluded by the Bulgarian Constitution from owning any part of a Bulgarian enterprise, it can temporarily set up its own equipment or other property in Bulgaria, which may eventually be purchased by the Bulgarian Government. Joint equity ventures in third countries are encouraged.

The new decrees, dated June 14 and Aug. 31, are important in at least two respects. First, they represent a Bulgarian commitment toward the use of Western methods and technology in advancing Bulgaria's economic development; and secondly, they suggest a liberalization in Bulgarian attitudes as to steps that can be taken to attract Western business.

Even prior to the decrees, Bulgaria had already concluded a number of cooperation agreements with West European firms. For example, it produces electrodes and controls for electric trucks, portable electric drills and portable typewriters to the specifications of West German firms. A French manufacturer of telephone exchange equipment made an agreement to take a portion of semi-finished components for its use in return for providing the Bulgarian firm Resprom with equipment to build modern exchanges for Eastern Europe.

Bulgaria is co-producing elevators with Sweden and internal combustion engines with a Danish firm. British firms have concluded cooperation projects with Bulgaria which cover a wide range of industry, from calculators, electronic controls for machine tools, and container forklifts, to foods, office equipment, and cigarette manufacturing machinery.

U.S. cooperation projects with Bulgarian enterprises have until recently been limited mainly to licensing agreements. With passage of the new cooperation decrees, however, the latitude of business arrangements between Bulgarian and U.S. firms should considerably broaden.

Bahamians Hope That Long Decline Has Been Checked

NASSAU'S WATERFRONT—*Prince George wharf, where several cruise ships are often docked at one time, is just a short walk from Rawson Square and the Bay Street shopping area.*

After three years of decline, the Bahamian economy appears to be levelling off, reports the U.S. Embassy in Nassau. There has been new interest on the part of prospective foreign investors, following a period of hesitancy resulting from concern about the government's "Bahamianization" policy and political uncertainties attendant on the general elections of 1972 which led to independence.

Tourism, the mainstay of the Bahamian economy, in 1973 slightly surpassed the 1972 number of arrivals and there was a 10.5 percent increase in tourist expenditures. Nevertheless, the hotel industry sustained operating losses of $7 million in 1973.

Long-range prospects for additional income should be brighter if plans for new oil terminals and refineries, the reopening of a sugar mill, a new cement plant and other projects are realized. The President of the Grand Bahama Port Authority, which controls Freeport, has recently reported an increase in economic activity there. For example, a West German firm (Klockner & Co.) will be building a pipe manufacturing plant on Grand Bahama.

When assessing the economic situation of the Bahamas, advises the Embassy, it should be remembered that the Bahamian economy is very open and is particularly influenced by changes and shifts in the American economy.

On July 10, 1973, the Bahamas became an independent country within the British Commonwealth. After winning the general election in September 1972, Prime Minister Lynden Pindling's government issued a White Paper on Independence. The section of the White Paper on Economic Development outlines the government's policy on development, industrial diversification and investment. Its basic premises, which remain the basis for government policy, are threefold: (1) effective control over the national economic environment; (2) maximization of benefits to the Bahamas from domestic and foreign investment; and (3) increased Bahamian ownership and/or participation in business activity where feasible.

Two fields, fishing and agriculture, are reserved to Bahamians. However, in practice the government appears interested in foreign investment in agribusiness. Crown and government lands will not be available to non-Bahamians except for approved industrial purposes and in exchange for equity participation. Normally such participation is through the government's Bahamas Development Corporation. Control of utilities will be public, either through full ownership or equity participation in existing utility companies in the islands. Foreign investment is encouraged.

The White Paper states that, where possible, foreign investors should seek partnership with Bahamians or consider equity participation by the government. The Bahamas tax haven status is to be maintained. The White Paper states that nationalization will not be an instrument of the government's economic policy.

In August the government purchased three luxury hotels just outside of Nassau with a $20 million loan from the Bank of Nova Scotia. These hotels will form the nucleus of what the Prime Minister calls "a comprehensive first-class resort complex". The government envisages a new gambling casino, convention center and shopping mall as part of the complex. Reaction to the government's purchase was somewhat mixed. The hotel industry, however, welcomed the move as a positive expression of the government's concern for this important sector.

U.S. leads by wide margin

The United States is the major trading partner of the Bahamas by a wide margin. U.S. exports to the Bahamas, which increased by 8 percent over 1972 to 54 percent of the market (excluding oil), should continue to capture an increasing share.

The Bahamian dollar was devalued in February 1973 and is now on par with the U.S. dollar. U.S. consumer goods have a competitive edge, because Bahamian consumers are familiar with them through Miami television, radio and newspaper advertising. The quality, shorter delivery time, lower freight costs, ease of ordering, favorable exposure of U.S. products and better financing more than offsets the slightly lower custom duty advantage enjoyed by goods from the United Kingdom and other Commonwealth countries. The Commonwealth Tariff preference is currently under study by the Bahamian Government.

Major export opportunities do or will exist for equipment for oil transshipment terminals, refineries, and related areas such as a ship repair facility. As new industrial and agribusiness investments come to the Bahamas, opportunities will exist for capital goods in factory equipment and farm machinery. The government will also need additional equipment for improvement of water and sewerage systems.

In view of relatively high labor costs, the hotel industry is in the market for labor saving products, fast food preparation equipment, and convenience-type food.

Independence has also opened new opportunities for sales to Bahamian Government entities which had previously gone to British firms. For example, an American firm received the contract to equip an expanded hospital facility in Nassau. The firm has also provided technical assistance.

Strong and unsettling government statements and a rigorous application of the Bahamian work permit policy slowed new investment considerably during the period 1969-1972. The Bahamian Government is now engaging in a public relations campaign to attract new foreign investment. Though some delays are still encountered, the situation on work permits seems to have eased, and this should help in restoring investor confidence.

Opportunities exist for investments in tourist and resort residential developments, particularly in the other islands aside from New Providence and Grand Bahama. The government is also looking for investors who, in partnership with Bahamians, can develop light industries.

Incentives for investors are offered through the Industries Encouragement Act and the Hotel Encouragement Act. These grant relief from import duties for plant machinery, tools, equipment, raw materials and in the case of hotels, materials and furnishings imported for construction.

International Business Reports

The Future of the Mexican Peso. Published by International Reports, Inc. 131pp. $75.

This study estimates that next year Mexico will have net foreign exchange earnings from oil exports of about $500 million, and that this will ease but not solve the balance of payments problem. Indicates that Mexico has become an attractive destination for foreign investment, but notes that the country is beset by development problems, including an explosive population growth which makes it necessary to accelerate economic expansion with the aid of foreign capital. Discusses economic, financial and monetary problems of Mexico and efforts to maintain political stability and economic growth.

Write: International Reports, Inc., 200 Park Ave. South, New York, N.Y. 10003.

Chad: Development Potential and Constraints. Prepared by an economic mission headed by Richard Westebbe, and published by the International Bank for Reconstruction and Development. 133pp., map, statistical appendix. $3.

This is the latest in a series of country economic reports published by the World Bank, and the first such report made available for general distribution on any of the 25 countries designated as "least developed" by the United Nations General Assembly. Chad is one of the poorest of the Bank's members.

Other reports in this series have analyzed development prospects and problems of Colombia, Ecuador, Nigeria, Peru, and Trinidad and Tobago. Those on Colombia and Nigeria were published for the Bank by the Johns Hopkins University Press of Baltimore and are available through bookstores, the publisher or its agents. Other titles in the series may be purchased from the address below.

Write: Publications Office, World Bank, 1818 H St., NW., Washington, D.C. 20433.

The Future of the China Market: Prospects for Sino-American Trade. By Edward Neilan and Charles R. Smith. Issued jointly by the American Enterprise Institute for Public Policy Research and the Hoover Institution on War, Revolution and Peace. 94pp. $3.

Neilan and Smith contend that, despite some notable setbacks and mistakes, China is better prepared today than at any time in the past century to handle its own enormous problems and to participate in the world economic society. They suggest that Americans will find important opportunities for trade and finance in the new China market.

The study includes the findings of the authors' poll of leading American government, banking and academic specialists on China trade. It discusses political, social and defense considerations, as well as the short and long-term prospects for Sino-American trade.

Write: American Enterprise Institute for Public Policy Research, 1150 17th St. NW., Washington, D.C. 20036.

Drawback—A Duty Refund on Certain Exports. Issued by the U.S. Customs Service. Free.

The U.S. Customs Service, which is responsible for collecting duties on goods imported into the United States, by law is permitted under certain conditions to refund duties paid to enable American commerce and manufacturers to be competitive in foreign markets. This leaflet explains in non-technical language what drawback is, the different types of drawback permitted under section 1313 of Title 19, U.S. Code, and how drawback may be obtained.

Write: U.S. Customs Service, P.O. Box 7118, Washington, D.C. 20044.

Principles and Techniques in Exporting. 1974 edition. Published by the International Trade Club of Chicago. $12.50.

This manual of exporting procedures, used in connection with the International Trade Club of Chicago's annual Seminar on Principles and Techniques in Exporting, follows a case history approach to the exporting activities of the fictitious Gro-Mor, Inc. Includes discussions of international market development, export orders, order processing and expediting, documentation, facilities of foreign freight forwarders and other allied support services, agricultural exports, AID, FCIA, government services and regulations, and credit and collection.

Write: International Trade Club of Chicago, 36 South Wabash Ave., Chicago, Ill. 60603.

Directory of Machine Tools and Related Products Built by Members of the National Machine Tool Builders' Association. 188pp. Free.

The 290 members of the National Machine Tool Builders' Association build more than 90 percent of the machine tools manufactured in the United States, according to the Association. This Directory is divided into three sections. The first lists all of the various types of products and tells which manufacturers make them. The second section lists each company and briefly describes all of its products. Finally, all trade names are listed and manufacturers identified. The index and product headings in the first section are printed in English and four other languages.

Write: National Machine Tool Builders' Association, 7901 Westpark Drive, McLean, Va. 22101.

Calendar For World Traders

Dec. 10—Memphis — Memphis World Trade Club, Southwestern University.

Dec. 10—Louisville—Kentuckiana World Commerce Council meeting, Holiday Inn Brownsboro East.

Dec. 11—New York—FCIB Publishers Export Credit Group luncheon meeting, Advertising Club.

Dec. 11—Boston—International Center of New England meeting. John Haldane of the Commerce Action Group for the Near East will speak on Business Opportunities for New England Firms in the Near East.

Dec. 12—New York—Overseas Automotive Club luncheon meeting, Summit Hotel. Speaker: Yayehrad Fikre, Mobil Oil Co., Ethiopia.

Dec. 12-13—Ann Arbor—Seminar on Marketing in Japan: Trading Companies and Joint Ventures, Weber's Inn. Sponsors: University of Michigan, Detroit District Office, The Japan Society, Inc.

Dec. 17—New York — FCIB Hardware-Automotive & Allied Trades Group Christmas Meeting and election of chairman, Advertising Club.

Jan. 7—New York—FCIB Round Table Conference on International Finance, Credit, Collection and Exchange Problems, Summit Hotel.

Jan. 16-Feb. 13—Cleveland—Weekly sessions on Basics of Importing, Cleveland World Trade Association, Union Commerce Building.

Jan. 20—New York—American Management Association seminar on Venezuela. Speakers will include Commerce's Thomas K. Brewer.

Jan. 20-21—New York—World Trade Institute seminar on Establishing Offices Overseas: Site Decision, Space Planning, Construction and Labor Problems.

Jan 27-29—New York—World Trade Institute seminar on Antitrust Problems in the International Sphere.

Worldwide Business Opportunities

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors abroad. One of the major means of communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine.

The section that follows presents details about U.S.-sponsored exhibits abroad, licensing and joint venture proposals, opportunities to sell to foreign enterprises and appoint agents, and details on major construction and expansion projects.

U.S. Promotions Abroad

Modern Merchandising. Frankfurt Trade Center. Jan. 14-17. The U.S. is one of Germany's leading suppliers of point-of-sales, materials handling, security, background music, and other equipment for the wholesale and retail trade. Purchases of merchandising equipment are expected to grow rapidly during the next three years, with continued imports from the U.S. Call William Dawson, 202-967-4941.

Agricultural Equipment and Supplies Catalog Exhibit. Cameroon and Malagasy Republic. Jan. 20-31. Agriculture is important in Cameroon and Malagasy and the use of modern agricultural methods is being strongly encouraged by the governments. Modern cultivating, harvesting, spraying and other mechanical equipment as well as chemicals to combat tropical crop diseases and livestock pests are in great demand. Robert E. Peterson, 202-967-3973.

Metalworking Equipment Catalog Show. Seoul and Manila. February. Korea and the Philippines offer a combined market for metalworking equipment of up to $40 million. This is expected to grow with continued improvements in production and repair of transport equipment, expanded minerals production, and new construction and manufacturing activities. Overall growth rates are satisfactory in both countries. While Korea represents the larger market, both countries are increasing their imports of metalworking equipment. The United States has a market share of 10 percent in Korea and 20 percent in the Philippines. Robert E. Peterson, 202-967-3973.

Microwave Technology Exhibition. Paris Trade Center. Feb. 3-7. The French market for microwave systems and equipment, circuits, components, test and measuring instrumentation is expected to expand sharply in the next few years. Spurred by a need to update outmoded communications systems and to utilize microwave applications for various military and industrial needs, the French are expected to spend over $960 million on microwave products from 1974-1977. Call Eugene Shaw, 202-967-2177.

Power Sources—Energy 75. Milan Trade Center. Feb. 8-12. The Italian market for power equipment, both primary and standby, is promising for American producers, as they can offer the most advanced products. The outlook for imports from U.S. suppliers looks especially good in the growing nuclear generation field. There is strong interest as well in geothermal and solar power, and other new approaches to power generation. The exhibit will be held in conjunction with INTEL 75-1st International Exhibition of Electrical Engineering. Call Carolyn Allen, 202-967-2434.

Railway Equipment and Technology Trade Mission to Egypt, Syria and Saudi Arabia. Feb. 8-20. Extensive expansion and renovation plans of these three countries envisage substantial purchases of locomotives and other rolling stock, communications and signalling equipment, cranes, track laying equipment, engine, wheel and track maintenance machinery, steel rails, wooden railroad ties. Technology services will also be in considerable demand. Douglas Harwood, 202-967-3741.

Recreational/Leisure Time Goods. U.S. Trade Center for Scandinavia in Stockholm. Feb. 10-14. U.S. manufacturers of summer and winter sports/recreation equipment, sports apparel, aircraft and aircraft equipment, boats and accessories, and other all-year-round products such as camping and physical fitness equipment have an excellent opportunity to exhibit their latest products at "Leisure Time/U.S.A." Scandinavians now have a shorter workweek, longer vacations and more money to spend on recreational products. William Beiring, 202-967-3276.

Automotive Diagnostic and Repair Equipment. Offsite Trade Center Show, Beirut. Feb. 10-14. Up to 15 U.S. firms will have the unusual opportunity to participate in this event in tandem with a similar Trade Center show in Tehran Feb. 2-6. The site is the Industry Institute in Beirut. As a hub of commercial and financial activity in the Middle East, regularly attracting business visitors from throughout the region, Beirut is a logical site for an exhibition designed to capitalize on the rapidly expanding market potential in area countries. Michel Smith, 202-967-4652.

Materials Test Instrumentation and Equipment. Frankfurt Trade Center. Feb. 11-14. An increase in both public and private research and development activity combined with more exacting specifications imposed by industrial customers has greatly strengthened the German market for materials test instrumentation and equipment. Imports of selected testing instruments are likely to reach $68 million in 1974, of which the U.S. share is expected to be 28 percent. Call Don Schmadel, 202-967-2177.

Food Processing, Food Packaging, and Agricultural Equipment Trade Mission. Colombia, Ecuador, Jamaica, and the Dominican Republic. Feb. 14-28. These countries are making an effort to substitute domestically produced food for imports, and at the same time expand employment. The result is an increased demand for planting, harvesting, livestock, dairy, poultry, and food processing and packaging equipment. Call Wanda Lee Ale, 202-967-4511.

Industrial Instruments. Sydney Trade Center. Feb. 17-21. The U.S. share of the Australian import market for industrial instruments is estimated at about $40 million, and potential has improved greatly as a result of recent price advantages gained through monetary revaluation and Australian tariff cuts. Because of this new-found price competitiveness, the U.S. market share could increase as much as 20 percent. Contact Fred Groh, 202-967-3646.

Automated Business Equipment and Systems Exhibition. U.S. Trade Center, London. Feb. 24-28. The United Kingdom imported $65.9 million worth of U.S. automated business equipment and accessories in 1973. Of 16 equipment categories, the United Kingdom was the largest import dollar earner in Western Europe for nine of them, second largest for six, and third largest for one. Electronic calculators, copying machines, word processing typewriters and systems, in-house offset printing equipment and many more categories are sought. Ron McCowen, 202-967-4462.

Technical Sales Seminar to Soviet Union, Czechoslovakia and Romania on Water Treatment and Purification. February. The Joint Committee on Cooperation in the Field of Environmental Protection has formulated four specific areas for work and improvement in the field of water treatment and purification: analysis and modeling of river pollution; protection and management of lakes and estuaries; effects of pollutants upon aquatic ecological systems; and prevention and treatment of waste discharges, including sewage treatment and industrial pollution. Wyn Coates, 202-967-5285.

Citrus Industry Equipment and Supplies Trade Mission. Spain, Italy and Greece. March 1-12. In these major citrus-producing countries there is good sales potential for machinery used in harvesting, food processing, and storage equipment for fruit growing and processing. Call Wanda Lee Ale, 202-967-4511.

Orchard and Vineyard Equipment (JEEP), U.S. Trade Center, Frankfurt. March 3-5. Increasing labor and production costs and the trend to more commercial type farming are focusing growers attention on the need for mechanization and new technology. Some substantial areas of market potential exist for U.S. products, especially those flexible or adaptable to the sometimes unique operating conditions of the country. Among these products are: components for advanced-type irrigation systems, frost protection systems (especially electrically ignited), hydraulic and pneumatic pruners, spraying equipment, mechanized harvesters designed for Germany's operating conditions and specialty items to improve field operations and worker efficiency. Contact nearest Commerce District Office or Paul Harder, 716-842-3208.

Communications Equipment Catalog Exhibit. Beirut. March 3-7. Lebanon offers a potential market for communications equipment of more than $10 million. The market is substantial and expanding yearly. Increased buying is expected in the area of telephone equipment. Robert E. Peterson, 202-967-3973.

Pharmaceutical and Cosmetics Exhibition. Mexico City Trade Center. March 3-7. Expanding Mexican Government medical care programs and stricter quality control requirements offer U.S. suppliers good opportunities to market a wide range of machinery, equipment, and instrumentation used in production and packaging of pharmaceuticals and cosmetics. High interest in bulk pharmaceuticals and cosmetics materials indicates good sales. Fred Tower, 202-967-3636.

Pulp, Papermaking and Converting Equipment Exhibition. U.S. Trade Center, Paris. March 3-7. With demand for paper skyrocketing, local manufacturers fall far short of meeting equipment needs. Furthermore, strict pollution

control regulations and the ongoing modernization trend are resulting in demand for the most sophisticated process control and pollution control equipment and instrumentation. There is also much interest in waste paper processes. Call Robert B. Wallace, 202-967-3748.

"PRINT-PACK USA"—International Printing and Packaging Exhibition. Sao Paulo. March 3-9. The Brazilian market for printing and graphic arts equipment is $52 million and growing 13 percent a year, and the market for packaging machinery is $28 million and growing 27 percent. Pete Field, 202-967-3871.

Communications Equipment Catalog Exhibit. Beirut, Ankara and Istanbul. March 3-14. Lebanon and Turkey offer a combined potential market for communications equipment of more than $460 million. The Lebanese market for communications equipment is substantial and expanding yearly. The Turkish market, where potential is greater, has undergone a significant structural change evident in the rising contribution of the industrial sector to GNP. Robert C. Peterson, 202-967-3973.

Electronic Data Processing and Related Equipment. U.S. Trade Center for Scandinavia in Stockholm. March 10-14. Strong EDP sales continue to be fueled by increasing private sector realization of new profit-oriented computer applications and by increasing flexibility in leasing and other approaches to the issue of computer availability. Current projections indicate that the Swedish market alone will spend almost $1 billion on EDP equipment in the 1973-77 period. Jim Lamont, 202-967-4543.

General Industrial Equipment and Instrumentation Solo Exhibition. Bogota. March 10-15. Colombian industrialists have greatly expanded and diversified non-traditional exports within the Andean Common Market and throughout the world, reaching $2.5 billion in exports in 1973 and doubling their total foreign trade in less than ten years. U.S.-based manufacturers will be joined by local agents of U.S. general industrial lines already being marketed in Colombia. Call Richard F. Muenzer, 202-967-2329.

U.S. Industrial Heat Processing Equipment Trade Mission to Korea, Taiwan and Singapore. March 10-24. This Mission is in response to strong market demand for industrial heat processing equipment in these three countries, whose economies are among the fastest growing in the world. The Mission will include U.S. companies providing industrial furnaces and ovens, combustion equipment, heat exchange equipment, dryers and other industrial heating devices. Bill Bushwaller, 202-967-4511.

U.S. Exhibition, Cairo International Fair. March 10-31. The American Embassy is sponsoring a U.S. Exhibition at the Cairo International Fair featuring a variety of products and services aimed at the Egyptian market. Apply directly to Roger Merrick, Commercial Section, American Embassy, 5 Sharia Latin America, Cairo. Limited background information is available from: Robert Vigneault, 202-967-4304, or John Haldane, 202-967-3752.

Sporting Goods (Joint Export Establishment Program—JEEP). Tehran. March 11-13. The Iranians are keenly sports-minded. Sports include snow skiing, soccer, tennis, hiking, fishing and camping. With rapidly increasing per capita income and conversion to a five-day workweek, a good market potential exists. Limited to new-to-market firms. Frank O'Connor, Commerce District Office, 411 Stuart St., Boston, Mass. 02116 (617-223-2312).

Industrial Assembly Equipment. Milan Trade Center. March 11-15. Vastly increasing labor costs are causing Italian manufacturers to seek more advanced types of assembly equipment. In addition, Italian industry, in its attempt to remain competitive, is being forced to rationalize production processes. Since Italian manufacturers produce mainly conventional types of industrial assembly equipment, the projected strong demand for high productivity machines, products and tools incorporating latest developments and know-how will be met by imports. Contact John Priamou, 202-967-2434.

Hotel and Restaurant Equipment Exhibition. Tokyo. March 14-18. This major promotion will be held concurrently with the 1975 Tokyo International Hotel and Restaurant Show. The Japanese market for hotel and restaurant equipment in 1973 was about $3.9 billion and growing 20 percent annually. Best sales prospects include equipment for administrative services, building mechanics, commercial food and services, and cleaning, maintenance and sanitation. John L. Wolf, 202-967-4056.

TAPEX '75—Antipollution Exhibition, 5th International Session. Tokyo. March 14-19. The estimated $5.6 billion to be spent by the Japanese in this field during 1974 represents more than 9 percent of total private plant investment in Japan. With Japan's pollution laws the most stringent in the world and its requirements increasing rapidly, U.S. suppliers, who now provide 70 percent of Japanese imports of pollution control equipment, materials and systems can expect excellent sales opportunities over the next three years. Call Ray Alvarez, 202-967-2461.

Educational and Training Aids Equipment (JEEP). Mexico City Trade Center. March 17-19. With a population of approximately 57 million, an economy growing at a steady 7.4 percent and a school enrollment of over 10 million, improved techniques and equipment for Mexico's schools and colleges are constantly being sought. In addition, enterprises are required to provide education and training for employees. Alvin G. Davis, Chicago District Office, 312-353-4450.

Technical Sales Seminar on Agricultural Chemicals and Chemical Processing. Hungary, Bulgaria and Romania. March 17-April 1. A recent study of these countries points up increased usage of U.S.-made pesticides and fertilizers including fungicides, herbicides, insecticides and chemical fertilizers such as phosphates. In response to this need, Commerce, for seven American firms in the fields of preparation, development, application and evaluation of agricultural chemicals, will set up seminar meetings in each city with key managerial and technical people as well as arrange private discussions with purchasing authorities. Fred E. Crosley, Jr., 202-967-5285.

Apparel Manufacturing Equipment Exhibition. Frankfurt Trade Center. March 18-21. Inflation and labor scarcity are inducing apparel manufacturers to streamline operations. Sales potential is high for most types of automated, labor saving or cost cutting production equipment and specialties. With easing of bank credits and interest rates, and elimination of investment taxes on capital goods, apparel makers are in position to purchase. Equipment sales are steadily climbing. An annual increase of 6.25 percent is projected through 1977 in Germany. Call Charles Whitley, 202-967-5381.

Advanced Electronic Components Exhibition. Milan Trade Center. March 24-27. Italian imports of advanced electronic components have been increasing an average of 18 percent a year. Between 1971 and 1973 consumption of these components climbed from $89.5 million to $135.7 million. High on the list of most-wanted components are capacitors, integrated circuits, diodes, rectifiers, transistors, resistors, thyristors, cathode ray color tubes. Call Sam Spaulding, 202-967-4508.

Mining Equipment and Services Trade Mission to Poland, Czechoslovakia, and Romania. April. Significant marketing opportunities are expected to result from this Mission. Participating U.S. companies will be recruited from the fields of mining engineering services, mine safety equipment, and strip mining apparatus and deep mining tools and equipment for coal and other minerals. Doug Harwood, 202-967-3741.

Railway Equipment Trade Mission to Nigeria, Zaire, Zambia, Botswana. April. Railroad rolling stock and equipment including maintenance, repair, service equipment, signaling, communications and electronics are among major categories of products and services urgently required to service, expand and build railroad systems in these expanding economies. Herb Socks, 202-967-3846.

Health Care Industries Catalog Exhibit. Ethiopia and Kenya. April. Development plans for these two countries call for expenditures of over $23 million for various health programs in a wide variety of areas. Major emphasis is on construction of buildings and purchase of equipment for health centers and health stations; upgrading present facilities; improvement of hospital services, especially in the areas of surgery, x-rays, safe water, sanitation, dentistry and some in the area of cardiology. Money has also been allocated for special projects to combat communicable diseases and to improve public health services. Robert E. Peterson, 202-967-3973.

Pumps and Compressors Specialized Exhibition. Moscow. April 1-10. The new five-year plan includes expansion of present and construction of new enterprises throughout the country. Implementation of these plans requires acquisition of a large volume of the most up-to-date pumps, compressors, and related items. Soviet domestic production is capable of supplying only a part of total demand for this equipment. Call Oleg Jerschkowsky, 202-967-3376.

Chemical and Petrochemical Processing Equipment and Services Trade Mission to Venezuela, Brazil and Argentina. April 3-15. All U.S. companies providing products and services in the broad field of chemical and petrochemical production and processing equipment, instrumentation and services are invited to participate. Limited to 12 members. Call Bill Bushwaller, 202-967-4511.

Hospital Equipment and Systems Trade Mission to Greece, Italy and Switzerland. April 5-17. Currency realignments continue to give U.S. products a price advantage over major competitors. The following medical/hospital equipment should find a good market: clinical and research laboratory instrumentation, and cardiological-thoracic, neurological, pediatric, nephritic and general hospital equipment, especially nuclear medicine equipment. E. Lee Carteron, 202-967-2973/4.

Electronics Production and Test Equipment Tandem Exhibitions. U.S. Trade Center, Stockholm, April 7-11, U.S. Trade Center, London, April 15-18. Two consecutive exhibitions directed primarily to producers of electronic components in Sweden and the United Kingdom are now being offered to U.S. manufacturers of nonferrous metal mill shapes; production equipment for semiconductor integrated circuits, printed circuits, wiring assembly and other components; test instruments and equipment for production and/or inspection; parts and devices and passive components; and piezoelectric crystals including mounted filters and parts. Maurice Peter, 202-967-4256.

Pollution Control Equipment Trade Mission to Belgium, Netherlands and Norway. April 7-18. Establishment of strict pollution control standards by these countries is creating considerable demand for air and water pollution treatment and recycling equipment, noise abatement and control equipment and measuring, monitoring, sampling and analyzing instruments. Call Douglas Harwood, 202-967-3741.

U.S. Consumer Goods Promotion. Tokyo Trade Center. April 9-12 and 16-19. The first

promotion will present major electrical appliances, electric and nonelectric housewares and home furnishings. The second will essentially cater to recreation, sporting and leisure items, games, toys, books, magazines, writing instruments, precious stones and jewelry, cosmetics, perfumes and athletic wear. Revaluation of the yen, escalating costs, changing Japanese tastes towards western goods, and demand for a wider range of quality/brandname items are contributing to strong sales of U.S. consumer goods in Japan. Call Don Chambers, 202-967-2963.

The International Motor Show. Barcelona. April 12-22. Commerce will sponsor a U.S. pavilion at Spain's leading annual event for the automotive industry. Plans have been established by Spanish auto manufacturers to spend $1.1 billion by 1977 for new and improved production facilities. With the subsequent increase in the motor vehicle population, there will be a tremendously increased demand for new and improved service and repair equipment. Call William S. Gaines, 202-967-3957.

Laser and Electro-Optic Technology Exhibition. U.S. Trade Center, Paris. April 14-18. A laser exhibition in 1969 resulted in over $3 million in sales during the show and the following year. Since then, scientific and industrial need has grown rapidly. During 1975-1977, French industry and scientific organizations are expected to spend $39 million on lasers. Imports are expected to constitute the greater share of this market. Chuck Whitley, 202-967-5381.

U.S. Book Fair. Sydney Trade Center. April 14-18. Australian imports of books and pamphlets are approximately $85 million, with annual growth of 10 percent. The U.S. provides about one-third. American products have been competitive recently with revaluation of the Australian dollar. In addition, recent breakthroughs in the restrictive markets agreement allow greater freedom and openness in Australia. Don McDonough, 202-967-3646.

Franchising Trade Mission. Tokyo, Osaka and Fukuoka, Japan. April 14-25. Japan's rapidly growing economy favors the extension of franchising activities in the categories of fast food restaurants, automobile products and services, laundry and dry-cleaning services, hotels, recreation, and retailing. Call Wanda Lee Ale, 202-967-4511.

Educational Training Aids & Audio Visual Equipment Catalog Exhibition. Singapore and Malaysia. April 15-23. This event is designed to assist U.S. industry in developing and expanding sales in the Far East market. Exporters of this type of equipment have a growing market in Singapore; imports increased 74 percent over the 1972 level to $41.8 million in 1973. Overseas suppliers furnish approximately 80 percent of Malaysia's requirements for educational training aids and audio visual equipment; in 1972 imports totaled some $10 million. Call Robert E. Peterson, 202-967-3973.

Plant Protection Systems (JEEP). U.S. Trade Center, Tehran. April 20-22. The market for plant protection systems in Iran is expected to grow from $3.6 million to $21 million within the next four years. Many new plants are under construction or expansion, and managers are interested in seeing new developments in plant protection methods. Participation limited to new-to-market firms. Phone Bill Welch at Detroit District Office, 313-226-3650.

MACH TECH—Machine Tools and Metalworking Equipment Exhibition. Taipei Trade Center. April 21-25. Taiwan's economy continues to expand at over 8 percent annually. The industrial sector is developing rapidly and requirements for metalworking equipment and machine tools are expected to increase at 15 percent per year, from $38 million in 1974 to $67 million in 1978. Harold Nelson, 202-967-4228.

Sales opportunities in 17 U.S. commercial exhibitions, 7 catalog exhibitions, 44 shows at U.S. Trade Centers, 11 trade missions and 4 technical sales seminars are being offered to present and potential U.S. exporters between now and September.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Beirut, Buenos Aires, Frankfurt, London, Mexico City, Milan, Paris, Seoul, Singapore, Stockholm, Sydney, Taipei, Tehran, and Tokyo. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, **write:** *Director, Office of International Marketing, Room 4015, U.S. Department of Commerce, Washington, D.C. 20230.*

U.S. specialized trade missions and technical seminars are comprised of groups of U.S. businessmen organized by the U.S. Department of Commerce to travel abroad to promote the export of U.S. goods and services produced by their particular industry. **Write:** *Trade Missions, Room 4219, U.S. Department of Commerce, Washington, D.C. 20230.*

Woodworking, Furniture Manufacturing and Timber Industries Equipment Exhibition. Zagreb Spring Fair. Yugoslavia. April 21-27. The timber and woodworking industries represent an important sector of the Yugoslav economy—accounting for 7 percent of total industrial output and 11 percent of total exports. Furniture manufacturing is one of the fastest growing and most successful industries there. The Yugoslav Government has accorded priority in economic planning for further development of these industries. Beryl D. Cohen, 202-967-4508.

Pollution Control Equipment. Frankfurt Trade Center. April 22-25. American manufacturers and suppliers of equipment for control of air and water pollution, noise abatement, sewage treatment and solid waste disposal have an excellent opportunity. In 1974 and 1975, the Federal Republic's annual investment in pollution abatement is anticipated at about $2.6 billion and $3.1 billion, respectively. Bill Dawson, 202-967-4941.

Process Control Instrumentation Exhibition. Manila. April 22-26. High sales potential exists in the Philippines for U.S. manufacturers of process measuring and control instruments and systems for measuring, recording, and controlling physical/chemical properties. Total consumption of such instrumentation rose from $1.7 million in 1970 to $2.4 million in 1973, a jump of nearly 30 percent. Consumption is expected to more than double between 1974 and 1978. Call Dave Horridge, 202-967-2798 or 5545.

U.S. Exhibition, Casablanca International Fair. April 24-May 11. A U.S. exhibition sponsored by the American Embassy will feature a variety of products and services aimed at the Moroccan market. Apply directly to: Joseph Fisher, Commercial Section, American Consulate General, B.P. 675, No. 8, Bd. Moulay Youssef, Casablanca. Limited background information is available from Robert Vigneault, 202-967-4304, or Laron Jenson, 202-967-5737.

Road Construction Technology Seminar to Ivory Coast, Nigeria and Zambia. April 29-May 15. Market studies just completed in these oil and mineral rich countries point to extensive and massive transportation construction outlays. Equipment imports alone will reach $310 million in the 1975-1976 period. This technical sales seminar will be chaired by a prominent figure in the transportation industry. Individual business appointments are scheduled. Fred E. Crosley, Jr., 202-967-5285.

Plastics Processing Equipment Catalog Show. Buenos Aires. May. The Argentine plastics processing industry consists of some 1,500 firms. Imports of equipment total about $1.2 million per year and are expected to grow at about 15 percent annually during the next five years. Robert E. Peterson, 202-967-3973.

Hospital/Medical Equipment (JEEP). U.S. Trade Center, Sydney. May 5-7. The medical equipment industry is one of the fastest growing markets for U.S. firms. Increased government spending in addition to monetary revaluations, make U.S. products very competitive, and most of Australia's requirements must be met by imports. Call M. R. Sherar, 317-633-4537.

U.S. Computers for Industry Trade Mission to Hong Kong, Taiwan, and Singapore. May 8-22. Market research has identified a range of computers and related products which offer sales potentials in these important markets. Ed Oliver, 202-967-3746.

Portable Power Tools (JEEP). U.S. Trade Center, Tehran. May 12-14. The $10 million market for pneumatic power and hand tools in Iran is expanding dramatically as Iran builds factories and houses for industrial workers and the burgeoning middle class. Limited to new-to-market firms. Phone Felix Turel at Cincinnati District Office, 513-684-2944.

Telecommunications Equipment and Systems Exhibition. U.S. Trade Center, London. May 12-16. The United Kingdom is one of the largest primary and intermediate markets in the world for telecommunications equipment, subassemblies, and systems. The British market for telecommunications equipment in 1973 amounted to $1.1 billion; imports totaled $218.8 million—$39.1 million from the U.S. Call I. D. Nathanson, 202-967-3355.

Biomedical Equipment Exhibition. U.S. Trade Center, Mexico City. May 12-16. The Mexican market for imported biomedical equipment is expected to reach $21 million by 1976. This market is wide open to aggressive U.S. companies with interesting new products to sell. Mary Wiening, 202-967-5037.

Analytical Instruments for Science and Industry Exhibition. U.S. Trade Center, Tokyo. May 12-16. For 1974, the Japanese market for automated and computer controlled analytical instruments is estimated at nearly $50 million. The expected value of $78 million by 1976 represents an annual average rate of growth of 25 percent. Of the 1974 consumption figure of $50 million, 57 percent is of domestic Japanese origin and a surprisingly high 37 percent of U.S. origin. Value-wise, Japanese imports amounted to approximately $21.6 million in 1974, with the U.S. share being $18 6 million or 86 percent. Fred Groh, 202-967-2709.

Children's Fashions (JEEP). U.S. Trade Center, Paris. May 13-15. In spite of an active French garment industry, the market in France offers splendid opportunities for many American manufacturers of children's clothing. Sales prospects for U.S. sportswear are likely to get better as youth-led trends towards casual clothing continue. Interest is especially strong for styles that project the American look. Contact nearest Commerce District Office or Anita Brownstein, 202-967-4504.

Toys and Games (JEEP). U.S. Trade Center, Paris. May 13-15. An increased affluence and a generous attitude towards youth are factors which account for a surge in the market in France for toys and games. In 1973 the French spent over $323 million for children's play-

things and this upward trend will continue. Contact nearest Commerce District Office or Anita Brownstein, 202-967-4504.

Airconditioning and Refrigeration Equipment Exhibition. Frankfurt Trade Center. May 13-16. This event will feature equipment for the commercial, industrial and residential markets. The current German airconditioning equipment market is estimated at about $301 million, of which about 22.5 percent or $68 million is manufactured in the U.S. By 1976 the market is expected to be about $458 million, of which $91.7 million will come from the U.S. The refrigeration market is expected to increase 5-8 percent annually. Don Schmadel, 202-967-2177.

Construction Equipment and Building Materials Exhibition. Milan Trade Center. May 16-21. The Italian construction industry ranks high internationally, with operations throughout the Mediterranean area, Africa, and elsewhere. U.S. products in many categories are now very competitive due to currency realignments and higher inflation levels in competing countries. This event runs concurrent with Cemento Expo, International Exhibition of the concrete industry at the same Fairgrounds. Drastically increased labor costs and other cost increases in traditional materials and construction techniques are causing Italian construction firms to seek new equipment and materials which will help them contain costs. Peter Wilson, 202-967-2434.

Technology 75—Tel Aviv International Fair. May 20-27. A show for machine tools, metalworking and finishing equipment and computers will be sponsored by Commerce at the U.S. Pavilion of this Fair, a "business only" event designed to attract the largest possible number of prospective purchasers. Tim Sutherland, 202-967-5506.

U.S. Advanced Business Equipment Exhibition, Budapest International Spring Fair. May 21-29. Hungarian officials have expressed high interest in advanced business equipment geared to mechanize and modernize office systems and administrative procedures. Principal equipment in demand includes: electronic calculators, accounting machines, microfilm systems, advanced model cash registers, copy and duplicating equipment, and other general office equipment. Call Kenneth McKenna, 202-967-2801.

Printing and Graphic Arts Equipment. Sydney Trade Center. May 26-30. This will be the third exhibition of the U.S. Trade Center for Australia. The Australian market for printing equipment has expanded from $33 million in 1972 to $54 million in 1974. Imports account for almost all of the market. U.S. exporters are in a good position to increase their share in the face of British and German competition. Call Don McDonough, 202-967-3646.

Hotel and Restaurant Equipment Exhibition. Stockholm Trade Center. May 26-30. Demand for U.S. equipment, especially that incorporating labor-saving features, is strong throughout the Scandinavian area—Denmark, Finland, and in particular Norway and Sweden, which are benefiting from high levels of economic activity. A complementary exhibition, sponsored by the U.S. Department of Agriculture, will feature processed food for the hotel, restaurant and institutional trade. William Beiring, 202-967-3276.

Apparel Manufacturing Equipment (JEEP). U.S. Trade Center, Mexico City. May 28-30. Expanding domestic and foreign sales of Mexican apparel and significant wage increases in recent years have created a solid market in Mexico for U.S. apparel manufacturing equipment, especially labor-saving devices. Call local Commerce District Office.

U.S. Pavilion, Paris Air Show, Le Bourget Airport. May 30-June 8. The export market is the brightest spot in the U.S. aerospace industry this year. In 1973 U.S. aerospace exports reached an all-time high of $5.2 billion, 27 percent of production. During the period 1968-1973, over 46 percent ($8.2 billion) of total U.S. exports ($17.7 billion) of civilian and military aircraft, engines and parts were shipped to Western Europe. Sales prospects for 1975 are particularly good for general aviation aircraft, helicopters, military aircraft for the NATO air forces, avionics and airborne instrumentation, aircraft engines and parts, airport and ground support equipment (with special attention on security equipment), and components. Michael G. Hanpeter, 202-967-4961.

Telecommunications Technology Seminar to Morocco, Algeria and Tunisia. June. Over $178 million will be allocated by governments of these countries for construction, expansion and modernization of telecommunications systems, according to current development plans. These countries have a preference for American technology and equipment. Emphasis will be on telecommunications and data transmission, including satellite communications, microwave transmission, data terminals and communications, mobile radio, and closed circuit and cable television systems. Fred E. Crosley, Jr., 202-967-5285.

Recreation and Leisure Equipment Exhibits. Paris Trade Center, June 2-5; Frankfurt Trade Center, June 10-13. The two leading markets of Europe—France and Germany—offer unusual opportunities for American manufacturers of sports items, photographic equipment and musical instruments. A leisure boom has occurred in both these countries as a result of the long-term economic development that has taken place. Increased incomes—the willingness to spend it—more free time from work—all are factors which are stimulating French and Germans to spend more on leisure products. In spite of some economic problems, demand for all types of recreational items is expected to surge in coming years. Myra Triplett, 202-967-5381.

Electronic Industry Production and Test Equipment Exhibition. U.S. Trade Center, Tokyo. June 2-6. The market in Japan for this type equipment is buoyed by the rapidly expanding markets, domestically and worldwide, for the massive output of Japanese electronic goods—expected to reach $20 billion by 1975—and the requirements of Japanese electronic manufacturers for production and test equipment—estimated to reach $215 million by 1977, up 40 percent from 1973. By 1975 the Japanese Government intends to remove any restrictions on investments and imports of electronic production and test equipment. Maury Shea, 202-967-2461.

Minicomputers, Terminals and Peripherals. Milan Trade Center. June 3-7. Recent market research indicates that the minicomputer segment is the most dynamic area of the computer industry. With an increase of 109 percent over 1973 figures, Italy's market for minicomputers is excellent as Italian firms of all sizes are moving away from large and medium-sized systems to smaller ones. The market for terminals and peripherals is also rapidly expanding. Carolyn Allen, 202-967-2434.

Food Processing and Packaging Equipment. U.S. Trade Center, Tehran. June 8-12. Consumption of packaged food is increasing at a fast rate in Iran, as per capita income rises in a geometric curve. Antiquated processing and packaging systems are unable to satisfy market growth, indicating substantial need for semi-automatic and mechanized equipment. A recent study indicates that sales of subject equipment in Iran will grow from $5.8 million in 1972 to $45 million in 1978. Call Don Ryan, 202-967-4652.

Hospital and Medical Equipment Solo Exhibit. Caracas. June 16-20. Venezuelan Government health care programs are receiving vigorous impetus in the form of new hospital construction and expansion of public health service activities designed to considerably broaden the range of medical services available to the public. In addition, stricter regulation of public and private health facilities will create an immediate demand for the whole spectrum of biomedical products. Equipment purchases by the government and private entities are expected to run from $20-30 million in 1975 alone. For information call Vicky Eicher, 202-967-4546.

Pollution Control Exhibition. U.S. Trade Center, Mexico City. June 16-20. The present Mexican Administration has made pollution control one of its highest priority programs. This federally coordinated pollution control program has increased demand for necessary equipment beyond projected programs of a few years ago. Call Phil Christenson, 202-967-5038.

U.S. Recreation and Sports Equipment/Toys and Games (JEEP). Sydney Trade Center. June 17-19. Australian imports of these products totaled $120 million in 1973 and are forecast to grow by 10 to 15 percent annually. U.S. exporters are price competitive in many areas and enjoy the advantages of originality in design, quality, and variety in product lines. Inflation was 14 percent in Australia last year, 20 per cent this year. Tariffs have been reduced, English competitors are losing tariff preferences, and imports into Australia are surging. For additional information call T. Sunohara, 206-442-5615.

Household Textile Products (JEEP). Milan Trade Center. June 17-19. With a population of over 55 million and a relatively high per capita income of $2550, Italy constitutes a large market for household textile products. Department store buyers have found that American items have strong appeal on the Italian market. Only U.S. firms not currently selling in Italy may participate. Ann Corro, 202-967-2434.

Kinshasa International Fair (FIKIN). June 21-July 6. A U.S. exhibition sponsored by the American Embassy will feature a variety of products and services aimed at the expanding Zairian market. Apply directly to: Ollie Ellison, Economic/Commercial Section, AmEmbassy Kinshasa, APO New York, N.Y. 09662. Limited background information is available from: Robert Vigneault, 202-967-4304, or Frank Ocwieja, 202-967-3904.

Air and Water Pollution Control Exhibition. U.S. Trade Center, Mexico City. June 23-27. The Mexican Government has passed stringent laws to control air and water pollution. The enterprising U.S. manufacturer who vigorously pursues this market will find it a gold mine. Phil Christenson, 202-967-5038.

U.S. Metalworking and Metal Finishing Equipment. Sydney Trade Center. July 7-11. Australian imports of metalworking equipment are forecast to double from $73 million in 1972 to $146 million in 1978. Two-thirds of the metalworking equipment used in Australia is imported and this trend is expected to continue. U.S. equipment is much more price competitive than in previous years, especially against German competition. Also, English exporters are losing tariff preferences. Don McDonough, 202-967-3646.

Business Equipment, INTERORGTEKHNIKA-75, International Exhibition. Moscow. Sept. 2-16. Soviet imports of business equipment from the industrialized West have tripled since 1967 and are expected to increase another 66 percent by 1977. Soviet specialists regard the U.S. as the world's foremost producer of modern business equipment. Now is the time to increase your share of the Soviet market. Call Jim Robb, 202-967-4810.

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Foreign Investment Services Staff, U.S. Department of Commerce, Washington, D.C. 20230. "P" numbers should be used when responding to any of the specific proposals listed.

WTDR indicates that a World Traders Data Report containing financial and background information on the foreign firm is available for $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230, or from any Commerce District Office.

OPIC indicates that the country involved is eligible for investment insurance coverage and financing from the Overseas Private Investment Corporation. Information regarding applicable coverage may be obtained from OPIC, Washington, D.C. 20527.

2331—GREECE — Three-year-old company seeks joint venture with U.S. firm to expand production of **ladies' shirts and blouses.** Company currently manufactures 2,000 to 4,000 shirts and blouses daily for export to Germany and the Netherlands. Plant is located in Thessaloniki and employs 200 people. To qualify for special Government incentives, the U.S. firm should be prepared to offer $200.000 toward the venture. Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74715. OPIC.

2435—PAKISTAN — Seeks joint venture to manufacture **chipboard paneling and plywood.** American participant would provide machinery, technical know-how and some raw materials in return for up to 49 percent equity. Proposed new facility would produce 40,000 to 50,000 sheets of quality chipboard and paneling per month. Azad Kashmir State Development Agency would participate in project; supply land and wood. About 80 percent of production could be exported to Middle East, other markets. Pakistani company has over 12 years experience in chipboard manufacturing. Lt. Col. (Retd.) Khan Mohd. Eshai, Chairman, Pakistan Chipboard Ltd., 8(F) Gulberg, Lahore, Pakistan. P-74698. OPIC. Further details available from Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230.

2500—UNITED KINGDOM — Firm seeks to manufacture under license **building materials, home improvement items, furniture fixtures and fittings.** Company presently manufactures, imports and distributes tools, builders' hardware, home improvement goods, timber and boards. It is the newest of many worldwide subsidiaries established by Plateglass and Shatterprufe Industries based in Johannesburg, South Africa. Parent company was established in 1921, employs 14,000; sales force, 300. M. Garbett, Solaglas International (UK) Ltd., 26a Davies St., London W1, England. P-74714.

2821—NORWAY—Seeks licenses for technology to manufacture **high density polyethylene.** Firm will operate Saga-Statoil-Norsk Hydro polyethylene/polypropylene plant. Decision on licensor expected in early 1975, and European firms appear to be in lead for selection. However, interested firms may contact Jan Martin Wennesland, Project Leader, Saga Petrochemicals, Middelthunsgate 17, Oslo 3, Norway. P-74702.

3079—GERMANY—Seeks U.S. licenses for manufacture of die cast technical **plastic parts and components** made of all types of thermoplastic materials up to a unit weight of 2,000/g. Firm produces die cast parts and components for automotive industry, television and radio manufacturers, machine builders, metal processors, as well as bathroom accessories and teaching aids. Employs 85. Hubert Riesselmann, Riesselmann & Sohn, Brandstrasse, Postfach 1440, 2842 Lohne i.O./Riessel, Germany. P-74707.

3079—SWITZERLAND—Firm seeks licensing arrangement to manufacture **plastic articles for mass production by cast molding** (capacity 110 grams and **extrusion machines** (max. diameter 100 mm.). May include technical/industrial items, toys, household and kitchen appliances. Company, a medium manufacturer of technical plastic items mainly for industrial applications and building industry, intends to diversify its present activity by introduction of new lines of plastic items which can be manufactured at its plant and sold throughout Switzerland and possibly other European countries. Firm, established since 1950, employs 60 people including 4 traveling salesmen. Mr. Rothenhaeusler, Tuflex AG, Flughofstrasse 35, 8152 Glattbrugg, Switzerland. P-74704.

3292—BRAZIL—Seeks collaboration with U.S. firm to produce **concrete railroad ties.** For information contact Emile Collins-Cona, Collins Exportadora Ltda., Rua da Quitanda, 11, Room 505, 20.000 Rio de Janerio, GB, Brazil. P-74711. OPIC

3362—ZAMBIA—Zambian Mines and Industry Ministry interested in forming joint venture operation with **U.S. metal processors** to establish plant to fabricate brass sheets and coils or a continuous casting plant for copper rods. Preliminary studies suggest 50,000-ton capacity plant. Andrew Kashita, Minister of Mines and Industry, P.O. Box 1969, Lusaka, Zambia. P-74708. OPIC

3443—NEW ZEALAND—Seeks joint venture or licensing arrangement for manufacture of **coal-fired boilers** with capacities ranging from 3,000 lb. of steam per hour to 10 000 lb. of steam per hour. Firm desires arrangement with manufacturer of pulverised coal-firing equipment for above range of boilers with which it would develop its own pressure vessels to work in association with this equipment. New Zealand firm is principal company of a very substantial group, and reportedly has excellent engineering facilities. James J. Drewry, Development Engineer, Mason Industries Ltd., 17 Maurice Road, Penrose, Auckland, New Zealand. (Post Address: P.O. Box 1633, Auckland). Telephone, 661-209; telex, NZ 2340. P-74699. WTDR.

3494, 3560—INDIA—Seeks joint venture to **manufacture hydraulic equipment.** Interests include high pressure axial plunger or inline plunger or radial plunger pumps; low pressure gear or vane pumps of high volume; safety relief, regulator, relief unloading valves for these plungers, gears and vane pumps; directional control valves, both manual and solenoid pilot operated types for the plungers, gears and pumps; and accumulators. Indian concern produces hydraulic and mechanical equipment such as presses and jacks, sheet metal components and flour mill machinery. It has marketed over 1,500 hydraulic presses in India and is an approved supplier to Government of India agencies. N. R. Srinivasan, Technical Consultant, New Bemco Engineering Products Ltd., Udyambag Industrial Estate, Belgaum 590008, India. P-74703. OPIC

3559—GERMANY — Manufacturer of transformer and condenser cases wants to expand its production program. Seeks licenses to make **new products in the field of pollution control.** Firm's facilities include modern machinery for metal forming and stamping, an electrical department and large storage capability. Established in 1909, company employs 57 and markets its products throughout Europe. Loos & Co., KG, 5912 Hilchenbach, Bruchstrasse 76, Postfach 53, Germany. P-74713.

3561, 3498, 3494—UNITED KINGDOM—Firm seeks licensing arrangement to manufacture products in fluid handling area suitable for oil industry, such as **pumps, heavy duty couplings, pipeline connectors, valves, filters and anti-corrosion equipment.** Company is a leading coupling manufacturer specializing in marine arm couplings, swivel couplings and cryogenic couplings for petrochemical and North Sea oil industries. It also handles a range of pumps used in the food processing industry. Employs 60 people. J. N. Watson, General Manager, Speed Seal Products Ltd., Halesfield 1, Telford TF7 4ND, England. P-74709.

3621—UNITED KINGDOM — Manufacturer of **electrical motor control systems** wants to expand operations. Seeks licenses to produce and market compatible products in U.K. and Europe. Firm's facilities include extensive system assembly and wiring shops, a comprehensive machine shop, a large sheet metal production unit and a light electromechanical unit. It has direct contacts in the machine tool, food, material handling and process plant industries. Company is affiliated with a large U.K. engineering group. R. I. Fox, Sales Director, Asquith Electrics (Colne) Ltd., Walton St., Colne, Lancashire, England. Telephone: Colne 4949. P-74700.

3711—ISRAEL—Interested in acquiring know-how/licensing or joint venture agreement for manufacture of **passenger car bodies and station wagons made from fiberglass.** Promoters are opening a medium sized plant where car and station wagon bodies will be manufactured. Also, firm wishes to import other mechanical parts. Most of company's output would be to meet local market requirements with possibility of re-exporting to other countries. Correspondence should be addressed to A. Zielony, Director, Hollander & Co. Ltd., 94 Allenby Road, Tel Aviv, Israel. P74712. OPIC

3732—PORTUGAL — Producer of fiberglass products seeks licensing or joint venture arrangement to manufacture **fiberglass boats,** ranging from small pleasure craft to such larger hulls as coastal boats. Sotenal-Sociedade Tecnica Naval de Almada, Ltd., Quinta do Loi, Vila Cha, Barreiro, Portugal, Cable: SOTENAL, Lisbon. Telephone, 2075322. P-74705.

3732—UNITED KINGDOM—Firm presently located in one of most important sailing/boating centers in the United Kingdom seeks joint venture arrangement with manufacturers of **pleasure boats:** fiberglass motor, sail and power, cruisers and yachts. Company would act as sales management office providing advertising, setting up foreign exhibitions. Firm possesses marine marketing and sales qualifications, together with technical knowledge, and offers multi-lingual translation facilities. Company has strong connections in other European coun-

tries. H. P. Hofer, Capstan Marine Management (CMM), Capstan House, Hamble, Hampshire, England. P74706.

3800—UNITED KINGDOM—Seeks manufacturing arrangement for production of **precision products** of high value/low volume, particularly in the oceanographic instrument field. Firm presently manufactures and exports gyroscopic instruments, oceanographic instruments, aircraft flight test instruments and special research instruments. D. F. Pengelly, Managering Director, Colnbrook Instrument Development Ltd., Poyle Road, Colnbrook, Buckinghamshire SL3 0AJ, England. Telephone, Colnbrook 2371. P-74701.

Licensing In U.S.

For additional information on these opportunities to manufacture foreign firms' products in the United States under a licensing agreement or in partnership, write the Investment Services Staff, Bureau of International Commerce, Room 4020, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number.

GERMANY—A U.S. licensee for manufacture and marketing of a patented rust preventive agent is sought by a German firm that has long specialized in development of rust preventives. The new agent, which has been on the market for about six years, can be applied by spray or brush. It is used mainly with automobiles, but new applications for railroads, building machinery, ships, steel structures, pipelines, and drinking water reservoirs are being explored. **File 2641**

GERMANY—A German company wishes to license a U.S. firm to manufacture its automated inventory and storage systems. These systems are based on a manned, elevator-like conveyance that can be moved along between two tiers of storage shelves and then raised to a desired height for storage or retrieval of parts. **File 2642**

GERMANY—A U.S. licensee to produce cover gratings, safety grate systems, and gratings for heating, air-conditioning, and swimming pools is sought by a German manufacturer of construction materials. Relatively safe, noiseless, and quality controlled, these gratings are manufactured under license and marketed in many European countries. Joint venture agreement will also be considered. **File 2643**

GERMANY—Manufacturer of interior parts, such as ashtrays and windows, for the German Federal Railways wishes to license production in the United States of its aluminum shock absorbers for locomotives and passenger cars. These newly developed shock absorbers, made of extruded aluminum, thus are lightweight and free of corrosion. Firm also sells to railways in other European countries. **File 2644**

GERMANY—One of best known German companies in field of packing material and systems offers to license its system for automatic filling of paper or plastic cups with yoghurt, sandwich spread, or similar substances. System also includes production of the paper or plastic cups from the usual raw materials. **File 2645**

SWITZERLAND—U.S. manufacturers of elevators, mobile shelving, automatic doors, or mechanical handling equipment may be interested in producing under license new space-saving pallet car parking system developed and patented by a Swiss firm. Under this system, which can increase capacity of parking garages up to 60 percent, cars of all sizes are driven onto pallets which are then moved along guide rails laid on floor of garage. The system has already been installed in a number of European countries. **File 2646**

UNITED KINGDOM—Large British firm is looking for a U.S. company to manufacture under license its oil hydraulic products used in farm machinery, heavy road vehicles, and construction, mechanized handling, and earth-moving equipment. Product range includes fixed and variable displacement pumps, gear motors, directional control valves, hydrostatic steering units, and ancillary equipment including flow dividers, relief valves, and rams. An ideal U.S. licensee would be involved in the mobile hydraulics business and be manufacturing such complimentary equipment as mobile directional control valves, filters, couplings, and hose. **File 2647**

UNITED KINGDOM—A British company is offering its newly developed solar energy system for manufacture under license in the United States. The company is now producing these units for use in the United Kingdom and France, and has designed modified versions of the system for warmer climates such as Middle East. U.S. partner would preferably be a manufacturer of reverse-cycle air-conditioning units based on evaporative cooler systems. Joint venture possibilities also will be explored. **File 2648**

SWITZERLAND—A medium-sized company specializing in novel biocosmetics and related treatments seeks an American joint venture partner. Swiss firm consists of three divisions: a certified school for beauticians; research, development, and manufacturing facilities for higher priced cosmetic preparations, and a plant for production of electric equipment and novel devices for cosmetic treatments in the home or beauty parlor. Product line includes cleaning and nutrition skin lotions and creams, as well as masks and similar special preparations which are exported to many countries. Suitable U.S. partner would be a manufacturer of cosmetics or cosmetic equipment, or a chain of beauty parlors. **File 2649**

GERMANY—A German firm plans to license manufacture in the United States of its patented machinery for handling powdered and granular materials, especially flexible screw conveyor systems for use in the chemical, plastics, food processing, pharmaceutical, cosmetics, milling, fodder processing, and related industries. Allegedly vastly superior to competing products, this equipment features such advantages as quick assembly and dismantling, easy maintenance and cleaning, uniform conveyance, and easy flow regulation. The equipment is protected by some 30 patents and is used for production under license in many countries. **File 2579-R**

Foreign Trade Inquiries

These trade opportunities are based on reports received from the U.S. Foreign Service-Department of State by the Trade Opportunities Division, Room 1322, U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1972 Census of Manufactures.

U.S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Department of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only traders with good reputations. However, the Department cannot be responsible for any trade relations.

WTDR indicates that a World Traders Data Report on this specific firm is available at $15 from the Export Information Division, Room 1313, U.S. Department of Commerce, Washington, D.C. 20230. A WTDR is a trade profile which contains commercial information including financial references, on an individual foreign firm. Orders must include complete name and address of the subject firm and be accompanied by payment. Further information concerning WTDRs and request forms are available at each Commerce District Office.

The mark (•) indicates that this trade opportunity is a request for bids by a foreign government agency.

Direct Sales

Food preparations

20942XX—INDIA—Bone ash having tri-calcium phosphate: 90 percent min.; fineness (minus 300 sh): 90 percent min.—17 M/T. Buyer holding Govt. of India import license. Quote c.i.f. Calcutta with delivery terms. Reply to S. N. Somani, Hindustan Copper Ltd., I O Ghatsila, District Singhbhum, Bihar. Cable Cordocopco Ghatsil; telex Hindcop JSR 287; phone Ghatsila 2.

Men's, youths', boys' furnishings, work clothing

23282XX, 23374XX, 23393XX—AUSTRIA—Men's and boys' casual jackets & jean-cut casual slacks made from denim & corduroy. Women's, misses' and juniors' casual jackets & jean cut casual slacks made from denim & corduroy. Documented offers c.i.f. Vienna or European port. Payment L/C or open account. For delivery January. Reply to—Bernhard Becker, Richard Wagnerstrasse 7, A-9010 Klagenfurt, P.O.B. 328. Tel. (04222) 86656; telex 42218 Satex A.

Industrial chemicals

28199XX—INDIA — Inorganic chemicals for glass industry: cobalt oxide; selenium; antimony oxide; arsenic powder. Buyer holds Govt. of India import license. Quote c.i.f. Calcutta with delivery terms. Reply to S. K. Jhunjhunwala, Ashoke Enamel & Glass Works (Pvt) Ltd., 12 Muralidhar Sen Lane, Calcutta 700007. Cable Glass Variety, Calcutta; phone 220809.

Synthetic materials

2821XXX—INDIA — Polyvinyl chloride/poly-

vinyl acetate (PVC/PVA) copolymer resin—83-85%; 13-15% PVC/PVA content; 500 M/T/yr. Requires material and regular basis for mfr. long-playing gramophone records. Quote c.i.f. Calcutta with delivery terms. Reply to K. A. Shah, Natl. Plant & Dev. Mgr., The Gramophone Co. of India, Ltd., 33 Jessore Rd., Dum Dum, Calcutta 700028. Cable Emitron Calcutta; telex 021-7007; phone 57-2431.

Gum, wood chemicals

2865511—INDIA—Coal tar pitch for aluminum production; coking value—45; softening point 62 degrees plus 3 degrees K&S method. Approx. 1500 M/T; delivery end 1974 or early 1975 in 2 or 3 lots for shipment to Bombay & Cochin. Quote f.o.b. prices with details of ocean freight charges, packing, other items, terms. Buyer is holding Govt. of India actual users' import license. Reply to A. K. Srivastava, Indian Aluminium Co., Ltd., 1 Meddleton St., Calcutta 700016. Cable Indalumin Calcutta; telex (021) 7332; phone 44-2371.

2869XXX—INDIA—Industrial organic chemicals—methylene di isocynate—50/100 M/T/yr.; furfuryl alcohol—200 M/T/yr. Quote c.i.f. Calcutta with delivery terms. Reply to S. Chopra, Project Mgr., Bhartia Electric Steel Co., Ltd., 8 Anil Maitra Rd., Calcutta 700019. Cable Stelectro Calcutta; telex Ca-7174; phone 44-7761.

Chemical products

28914XX—INDIA—Rubber-to-metal adhesive cements—(A) Chemlok, or equal, (B) Lixite 10 M/T/yr. ea. Quote c.i.f. Calcutta with delivery terms. Reply to R. M. Dutta, Asst. Works Mgr., Vulcan Rubber Co., Pvt. Ltd., c/o Bhartia Electric Steel Co. Ltd., 8 Anil Maitra Rd., Calcutta, 700019. Cable Stelectro, Calcutta; telex Ca-7174; phone 47-7761.

Fabricated rubber products

30690XX—GERMANY — Synthetic sausage casings. Founded 1953; annual sales volume dm 1 million; 1 employee; general financial condition sound. Reply to—Mr. Von Valtier, Owner, Horst G.F. Von Valtier, 2 Hamburg 1, Kirchenallee 57. Cable Valtierexport Hamburg; tel. 040 24 78 55.

Abrasive, asbestos, nonmetallic mineral products

32950XX—INDIA—Miscellaneous nonmetallic mineral products; diatomite ore or calcined diatomite process for filter-aids; approx. 200 M/T/yr. Quite c.i.f. Calcutta with delivery terms. Reply to C. C. Goenka, Proprietor, Goenka & Co., 55 Canning St., B Block (Third Floor), Calcutta 700001. Cable Whitestone, Calcutta; phone 34-0271.

Primary smelting, refining of nonferrous metals

3333421—URUGUAY—Zinc ingots. Tire retreading firm interested in expanding dept. for processing 400 M/T yr. of zinc into zinc oxide for own use & export. Wishes quotation c.i.f. Montevideo for initial shipment 5 tons 99.99% zinc electrolite or zinc alloys that do not contain copper or manganese, with possibility of continuing sales. Reply to—Alberto Cunaro, Record S.A., Paraguay 2472, Montevideo. Tel. 206520.

Secondary smelting, refining of nonferrous metals

3341311—JAPAN — Lead ingots, unalloyed, purity 99.99%, electrically refined; est annual purchase $30,000. Reply to—Mr. K. Koyama, Yamanaka & Co., Ltd., 4-33 Andojibashi-Dori Minami-Ku, Osaka 542. Cable Sakigake Osaka; tel. 06-251-3091.

Cutlery, hand tools, general hardware

34231XX, 3429XXX, 35461XX—AUSTRIA—Grinding stones; hand tools; hardware for sale in hardware stores; power driven hand tools. Inquirer is small distributor of hardware products. Estab. 1974, sales area—Austria. Quote c.i.f. Time of delivery, January. Documented offers requested. Direct sale & agency. Reply to—Brita Straubenmueller, Ing. Erwin Straubenmueller, Langobardenstrasse 15/8, A-1220 Vienna. Tel.: 22 58 392.

Metalworking equipment

35414XX, 35418XX, 35471XX, 35472XX—INDIA—Hot rolling mill for producing 2-4 mm thick finished strips with single reheating & rolling of suitable cast-slabs. (Min. weight 1 kg/1 mm width). Cap. 15,000 M/T/annum. Requires quotations separately for mills capable producing max. 350 mm & 150 mm wide strips. Cold rolling mill for rolling & skin-passing (also with intermediate annealing when required) strip of 150 mm width. Capacity 10,000 M/T/annum. Heavy duty roll grinder with max. 450 mm & min. 80 mm dia. face width 450 mm & hardness 950 degree shore. Machine should have high accuracy of grinding. Arrangements for crowning up to 0.05 at center of roll. Automatic feed, dressing of grinding wheels, etc., should be provided. Continuous strip cleaning line to produce/annum: 6,900 M/T high carbon; 1,150 M/T high carbon low alloy; 600 M/T high speed steel 18/4/2 quality; & 2,850 M/ mild steel hot rolled steel strips. Coil size: 485 to 500 mm I.D. & 1,100 mm O.D. width; 300 mm to 350 mm; thickness: 2 to 4 mm; coil weight: 1.5 M/T to 2.6 M/T. Unit should consist of: uncoilers; pinch rolls; scale breaking/flattening machine; guillotine shear; welding table; bridle rolls; shot blasting unit: high pressure cleaner; pickling, rinse, neutralizing tanks; drier; oiler; shear; recoilers; etc. Quote c.i.f. Calcutta with delivery terms. Firm has set up 2 new projects for mfg. strips in technical collaboration with Hoesch, W. Germany. Above mentioned units & additional machinery & equip. required to be imported from U.S. for these new projects. Reply to R.B. Chaudhuri, Development Engineer, Anil Steel & Industries Ltd., 27A Camac St. (Fifth Floor), Calcutta 700016. Cable Hardstrip Calcutta; telex Cutsize Ca3103; phone 44-3375.

3542351—INDIA — Can-making machinery suitable for mfg. aluminum cans (12/13 fluid oz.) for packing beer, other beverages. Capacity: 100 million cans/annum with "tear ton" type lids. Quote c.i.f. Calcutta with delivery terms. Reply to Prakash Mohta, Universal Can & Containers Ltd., c/o Universal Autocrafts (Pvt) Ltd., P-1 Transport Depot Rd., Calcutta 700027. Phone 22-3411; 45-8638.

3542351—INDIA — Can-making machinery (food & fruit canning industry) to mfr. 50,000 to 60,000 cans/day. Quote c.i.f. Calcutta with delivery terms, catalogs. Reply to P. Roy, Agronomist, West Bengal Agro-Industries Corp., Ltd., 23-B Netaji Subhas Rd., Third Floor, Calcutta 700001. Cable Agrinput Calcutta; phone 22-2314.

3542356—INDIA — Machinery & equip. for mfg. aluminum collapsible tubes, including printing & threading arrangements. Production capacity 3 to 3.6 million tubes/yr. Size of tubes dia. max. 35 mm & min. 6.5 mm; length max 203 mm & min. 50 mm. Machinery required for newly-started small scale industry. Reply to Nikhil Chandra Das, Suva Engineering Works, 44 Dutta Para Chatra, P.O. Box Serampore, District Hooghly, West Bengal.

Special industry machinery

35513XX, 35514XX—INDIA—Fruit juice extraction plant; fruit & vegetable canning & packaging machinery. Will also be interested in joint venture proposals. Quote c.i.f. Calcutta with delivery terms. Reply to B. C. Surna, Begraj Bhanwarlal Traders Pvt Ltd., 5 Synagogue St., Calcutta 700001. Cable Newdeal Calcutta; phone 22-6296.

3552198—INDIA — Machinery & equip. to mfr. "Super-Stik," or equal, iron-on mending & decorating fabric tapes & allied products. Quote c.i.f. Calcutta with delivery terms. Reply Pradip Khemka, Executive, East Point Assoc., c/o B. A. Khurody, Embassy Bldg., Second Floor, Shakespeare Sarani, Calcutta 700016. Phone 44-0462; 24-7325.

3559111, 3443419—INDIA — Complete plant for mfr. oxygen & acytelene gases for industrial use. Min. cap. plant: 125 cu. meters gas/hr. (buyer prefers secondhand plant in A-1 condition, but will also consider offers for new plants). Gas cylinders for oxygen & acytelene gases: min. cap. 7.5 cu. meter/cylinder, 5,000 cylinders—preferably secondhand, in good condition. Offers for new cylinders will also be considered. Buyer, who plans to form new company with min. paid-up capital of $400,000, will also be interested in joint venture proposals. Quote c.i.f. Calcutta with delivery terms.

3559451—INDIA — Machinery & equip. for mfg. automobile tires & tubes. Specs. available from U.S. Dept. of Commerce, TOP/BIC-267, Rm. 2323, Washington, D.C. 20230. Reply to P. K. Saraf, Universal Tyres Ltd., P-16 Bentinck St. (5th Floor), Calcutta 700001. Cable Unityers Calcutta; phone 22-6123.

General industrial machinery

3567221—INDIA — Ammonia cracking machinery (without furnace)—220 volts; 6.9, KW; temp.: 900 degrees centigrade—to suit electric annealing furnace having 420 volts, 99 amps. temp.: between normal 850 degrees centigrade & max. 950 degrees centigrade. Quote c.i.f. Calcutta with delivery terms. Reply to S. R. Surana, Shalimar Wires & Industries Ltd., 27A Camac St., Calcutta 700016. Cable Paperwires, Calcutta; telex cutsize Ca 3103; phone 44-3375.

Communications equipment

36624, 36625—PORTUGAL—Electronic navigational aids, electronic search & detection apparatus, incl. radar. Reply to—Mario Afonso Ferrao, Mgr., Sonautica-Soc. Nautica Portuguesa, Rua Herois de Franca, 133, Matosinhos. Tel. 932983.

Tunisia Designates Industrial Zones In Seven Port Cities

Tunisia's recently established Agency for Industrial Real Estate has designated large industrial zones in the following port cities: Tunis, Bizerte, Menzel Bourguiba, Nabeul, Sousse, Sfax, and Gabes. The zones will be developed to encourage investments, especially in export industries.

Potential American investors interested in taking advantage of Tunisia's favorable investment laws and climate should write Agence Fonciere Industrielle, 5 Rue Robespierre, Tunis, for additional information. P-74691.

Bangladesh Eyes Investment, Lists 11 Priority Industries

The Government of Bangladesh has recently taken a more positive view toward the potential contribution of the private sector to the nation's economic development, the U.S. Embassy in Dacca reports.

The Bangladesh Government has expressed interest in encouraging foreign private investment and on Oct. 1 issued the *Priority List of Industries of the Investment Schedule for the*

Years 1974-1976. The list shows the 11 major groups of industries, broken down into 108 sub-sectors, where the Government is planning for private capital investment and includes an outline of the new policy. Further information is available from the Foreign Investment Services Staff, Room 4021, U.S. Department of Commerce, Washington, D.C. 20230. P-74710.

Representations

Foreign private firms are interested in agency agreements and/or distributorships for these products.

Broad woven fabric mills, cotton

2211XXX—AUSTRIA — Fabrics for ladies' shirts & blouses (batiste plain & imprinted, light poplin, georgette), velvet, velveteen. Small mfg. firm of ladies' outergarments, wants to restrict mfg. owing to lack of labor & to switch to resale activities. Intends to deliver from stock on own account in case of small orders. Greater items should be delivered directly from factory to customer. Larger orders can be expected. Seeks agencies for Austria only. Quote c.i.f. or f.o.b.; term of payment—c.o.d. or charge to open account. Reply to—Mr. Hoffmann, Owner, Karl Hoffmann, Buergerspitalgasse 21, A-1060 Wien. Tel. 5778064.

Fabricated wire products

34820XX—UNITED KINGDOM — Shotgun cartridges for sporting purposes. Reply to—M. A. Pass, Group Mng. Dir., Granwood Holdings Ltd., Riddings, Derby DE5 47T. Tel.: Leabrooks 2341; cable Granflor, Alfreton.

Instruments for measurement, analysis and control

38252XX—AUSTRIA—High precision instruments to measure electricity for use by Bureaus of Standards, industrial research & calibration institutes, testing & measuring depts., e.g., voltage & resistance standards, resistance thermometer bridges, multimegohmmeters, high voltage capacitance bridges, instrument transformer test sets, constant temperature oil baths, current sources, amplifiers, nanovoltdetectors, etc. Seeks excl. sales rights for Austria & all E. European countries including USSR. Imports for own account. Long estab. dealer in industrial & scientific equip. has extensive contacts in governments and industries of all E. European countries. Experienced East-West trader with highly qualified technical sales force. Documented offer with price quotations (f.o.b. U.S. East Coast) requested. Payment terms L/C. Reply to—Dkfm. F. S. Kaufmann, Mng. Dir., Allkommerz Import-Export Ges. M.B.H., Bauernmarkt 24, A-1010 Vienna. Tel. 636479.

3829324—AUSTRIA — Liquid crystal digital scales for indoor/outdoor household thermometers with range from 16 to 30 celsius degrees. Interested in direct imports for sale to thermometer mfr. Requirements depending on price 200,000 to 500,000 units. Documented offers with samples & price quotations requested. Deliveries needed in June 1975. Payment: L/C or c.o.d. Reply to—Peter Simeous, Wiener Werbe, Loewengasse 47, A-1030 Vienna. Tel: 731729.

Motion picture distribution

78240XX—UNITED KINGDOM—T.V. video cassette programs. Subject firm is U.K. branch of large South African company established in 1886. Firm acts primarily as ships' agents but has requirement for onboard entertainment by way of video-taped T.V. programs. London firm is most anxious to contact interested U.S. distributor as there is also a large potential for forthcoming South African television service. Reply to—T. R. Harding, Mosenthals Transportation Services (Pty) Ltd., 13A Old Burlington St., Mayfair, London, W.1. 1LA. Tel 01-437-5286; telex 23386; cable Mosenthals, London.

Future Construction Abroad

INDIA—The Karnataka Electricity Board (KEB) will be importing power generation equipment worth $26.7 million to implement short gestation power production projects in state of Karnataka. Proposed projects include: **Power Station at Sivasamudram:** Install either three 50 MW generators or five 30 MW generators. Also propose to convert generation of power from 25 cycles to 50 cycles at this station. **Power Station at Hidkal Dam (Ghataprabha Valley):** Install two 14.2 MW generators. **Power Station at Kabini Dam (Cauvery River Basin):** Install one 16 MW generator. **Power Station at Bhadra Hydel Project:** Install a second generator of 7.2 MW. **Bharat Gold Mines Ltd.:** Equipment required to convert operations from 25 cycles to 50 cycles power at Kolar Gold Fields. This includes thyristor convertors and control equipment for replacing motor generator sets of Ward Leonard winders, A.C. slipring induction motors, A.C. synchronous induction motors, transformers and control gear, and single phase transformers. Although the KEB will be issuing tenders for importing required equipment, the Chairman would appreciate responses from U.S. suppliers on availability and delivery schedules before tenders are issued. U.S. suppliers may contact K. S. Sivaprakasam, Chairman, Karnataka Electricity Board, Post Bag 5324, Bangalore 560001. OPIC

JAMAICA—The Government of Jamaica will spend U.S.$84 million on **water supply projects** throughout Jamaica in 1975. A preliminary project estimated to cost U.S.$160,000 will be undertaken immediately to upgrade supply system in Montego Bay area. An additional U.S.$14.3 million will be used to provide a supply scheme there; work will start in early 1975. Another big project is the Canaan-Charity Scheme in eastern section of St. James which will cost just under U.S.$1 million; work has started with installation of 3 miles of pipeline. When completed in 1976, scheme will supply more than 1.4 million imperial gallons of water per day to 10 districts with population of 10,000. These and other schemes being developed to increase water distribution country-wide will be under supervision of the National Water Authority. Suppliers of pumps, water purification equipment and other related equipment should direct further inquiries to: The Chief Engineer, National Water Authority, 14 Oxford Rd., Kingston 5. OPIC

The Overseas Private Investment Corporation (OPIC) provides qualified U.S. investors—large and small—with political risk insurance and financial assistance to support investment in about 80 developing countries. For further information on projects with an OPIC notation write Information Officer, Overseas Private Investment Corp., Washington, D.C. 20527. Tel: 202/632-1854.

BOLIVIA—Yacimientos Petroliferos Fiscales Bolivianos is considering building a small **chemical plant to produce ammonium nitrate explosive** as needed in the expanding national mining industry. Plant will have capacity of 50 or 100 metric tons of ammonium nitrate explosive per stream day, and will consist of a nitric acid unit and ammonium nitrate unit. Only raw material will be liquid ammonia to be made available from a large ammonia urea fertilizer factory expected to be constructed within the next few years in Bolivia. Capacities of the ammonium nitrate explosive plant as indicated above are much lower than typical plants of similar process, where ammonium nitrate is being produced for fertilizer use. Companies interested in designing and constructing the plant should contact Eng Jorge Aramayo Montes, Yacimientos Petroliferos Fiscales Bolivianos, Casilla 401, La Paz. OPIC

CHILE—The government-owned Copper Corp. (CODELCO), Agustinas 1161, 4th Fl., Santiago, contact: Gregorio Waissbluth, expects **large investments in copper mining and processing** in Chile, with bulk of funds coming from foreign sources. IBRD contracted the Canadian mining firm Noranda to study various investment possibilities in the copper sector. Using this study, the Government of Chile is preparing an outline of preferences.

CHILE—ENDESA, the State-owned power company, has applied for an "emergency loan" of $30 million to finance a **number of small projects to maintain and expand Chile's electric power resources.** Loan application is in final stages and ENDESA expects disbursements to begin in late 1974 or early 1975. Substantial portion of loan proceeds will be used to **import following:** power line construction tools and equipment; electrical cable; electrical distribution equipment; transformers; condensors; telecommunications equipment; electrical substation equipment and construction material. In addition, consultation services will be solicited for construction of electrical substations and power transmission systems. Contact: ENDESA S.A., Santa Rosa 76, Santiago, Attn.: Raul Ortega.

MEXICO—Officials of the Mexican Social Security Institute (IMSS) announced a 3-year construction program planned for January 1974-December 1976, with hospital models classified as types T-1, T-2 and T-3; 91 hospitals planned for 1974, mostly small clinics, with 47 finished as of September. Hospitals will require electromedical equipment such as surgical instruments, clinical laboratory equipment, and research equipment. Interested U.S. firms should contact Lic. Manuel Ramirez Reyes, Head of Acquisitions, IMSS, Reforma 476, Mexico, D.F. For details concerning the construction program, contact IMSS Construction Headquarters (Jefatura de Construcciones de IMSS), Jorge L. Medellin, Durango 291, Col. Roma, Mexico 7, D.F., tel.: 553-46-12. Government purchasers usually prefer business with firms who have representatives in Mexico.

Construction Project Summary Is Available To U.S. Firms

A quarterly summary of future construction projects abroad, contract award stories and significant foreign government tenders published in *Commerce Today* and *Commerce Business Daily* during July, August and September is available to U.S. firms from the U.S. Department of Commerce, Trade Opportunities Program, Rm. 2321, Washington, D.C. 20230.

A pre-addressed mailing label should be included with the request to facilitate processing and mailing. The summary may also be reviewed at any of the 42 Commerce District Offices.

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